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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

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Articles and Photographs.—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

We do not hold ourselves responsible for the views expressed by our correspondents.

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"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

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Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

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Victoria (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

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E. H. WRAGG, Secretary and Advertising Manager.

Tasmanian Director: HON. L. M. SHOOBRIDGE, M.L.C.

The Canned Fruit Industry

Federal Government Increases Bounty.

As Growers' Position is Still Unsatisfactory, State Government Assistance is Sought.

Since our last report the Federal Government has increased the proposed bounty from £125,000 to £141,000.

The original intention of the Federal Ministry, as announced in November "Fruit World," was to pay a bounty on production of 9d. per doz. tins on Apricots, Cling Peaches, and Pears, and 7d. per doz. on Freestone Peaches, with an additional bounty on export of 2/- per dozen tins on Cling Peaches, 1/8 on Apricots, and 1/6 on Pears.

As this offer was found to be unacceptable, it was subsequently varied thus—to increase the bounty on production by 3d. per doz. tins, namely, on Apricots, Cling Peaches, and Pears from 9d. to 1/- per doz. tins, and from 7d. to 10d. per doz. tins on Freestone Peaches, at the same time to reduce the bounty on export on Cling Peaches from 2/- to 1/9 per doz. tins.

The bounty of £141,000 would be thus allocated, £89,000 on production of the canned fruit, with an additional £52,000 on export.

In making the announcement, the Acting Prime Minister, Dr. Earle Page, stated it was Cabinet's earnest desire that the export trade should be developed, hence the liberal bounty on export. It was not sufficient to simply cater for the Australian trade.

The Co-operative Canneries urged that the bounty be increased to 1/3 per doz. tins on production, but finally accepted the price at 1/-.

The proprietary canneries stated the terms proposed were unworkable, as the risk was too great. They offered to operate at cost or to hand their factories over to the Government.

It is understood that the Tatura (Vic.) and some other factories will not be operating this season, thus reducing the available factory accommodation, whilst the crop has increased. The position is a serious one for the growers.

It is to be hoped that the negotiations now proceeding between the growers, canners and the Victorian Government will be successful.

The State Government has a distinct responsibility in this matter, having placed so many settlers on the land. To help these, and leave the pioneer growers without assistance would not be right.

The whole position bristles with difficulties, but seeing that the Federal Government has offered bounties to the extent of £141,000, it should be an impossible task for the State to make good the present deficiency.

Meanwhile the crops are developing, and no time should be lost in arriving at finality in these matters.

VICTORIA.

Superintendent of Horticulture.

Mr. J. M. Ward Appointed.

The much discussed appointment of a Superintendent of Horticulture in Victoria has been made, and Mr. J. M. Ward is to fill the position from January 1st next.

Mr. Ward is a practical fruitgrower, he having worked a 40-acre orchard in Tasmania. Subsequently he was appointed by the Tasmanian Government as its fruit expert. Mr. Ward was popular with the Tasmanian growers: he did much to improve the grading and packing of fruit, particularly by the conducting of "packing schools" in orchard districts.

At the instance of the Tasmanian Government, Mr. Ward visited California in 1917 and absorbed much useful information.

A year ago Mr. Ward resigned from his Tasmanian appointment to accept the position as Instructor in Fruit Culture under the Queensland Government.

There is much useful work awaiting attention in organising the horticultural branch of the Victorian Department of Agriculture.

IMPERIAL TRADE PREFERENCE.

Proposed Preference of 5/- per cwt. in Favor of Empire-grown Apples.

The Empire Economic Conference agreed to the placing of a duty of 5/- per cwt. on Apples imported into Great Britain except on those produced in the British Dominions.

These proposals will come before the next British Parliament, which is now in process of election.

The proposed duty will principally affect U.S.A., which sends between four and five million bushels annually into Great Britain. The duty amounts to 1/8 per case, or ¾d. per lb. Canada, the biggest competitor of U.S.A., would benefit more by this duty than Australia, as our fruit arrives on the market as the Northern Hemisphere fruit is finishing.

The news of the proposed duty, however, has been received with the liveliest gratification by Australian Apple growers.

It is expected that the present British Government, if re-elected, will confirm all the preferential tariff proposals of the Economic Conference.

FEDERAL GRADING REGULATIONS.

Objectionable Clauses Withdrawn.

The unauthorised additions to the Commonwealth grading regulations for fresh Apples and Pears(as published in last month's "Fruit World"), the gazettal of which brought forth a storm of protest, have been withdrawn, and the regulations stand as agreed to by the growers' conferences.

"Fruit World" Crop Report.

Report from every State and New Zealand.

Substantial Quantities Anticipated : Interesting Details.

ANTICIPATIONS regarding the coming fruit crops are published in this issue: details regarding varieties, etc., will be found under their several State divisions.

Summarised, the position is as follows:—

Tasmania.—Apples, medium; Pears, light; Apricots, medium to heavy; small fruits, heavy.

Victoria. — Apples. medium to light; Pears, medium; Peaches, medium; Apricots, medium to heavy; Grapes, heavy.

New South Wales.—Oranges, heavy crop anticipated; Apples, medium; Pears, medium; Peaches, medium; Apricots, light; Plums, heavy.

South Australia.—Apples, medium; Pears, medium; Plums, light; Apricots, Peaches and Nectarines, fair to light; Oranges, heavy; Grapes, heavy.

Queensland. — Apples and Pears, good; Pineapples, heavy; Grapes, heavy; citrus, good prospects.

Western Australia.—Apples, medium; Pears, medium; Grapes, heavy; Citrus, good prospects; Peaches, medium to light; Apricots, medium to light.

New Zealand.—Good average crops anticipated.

On the whole, it would appear that the crops generally are lighter than last year, principally due to unseasonable weather in the several States.

With regard to Apples, there should be substantial quantities to export.

Pears are lighter than last year.

Peaches and Apricots are in bountiful supply: but at the time of writing, the canning position is obscure. In any case, it looks as though there will be heavy supplies coming forward to the fresh fruit market.

Grapes are showing up nicely, and there should be a big pack of dried fruit.

Plums, small fruits, and jam fruits are generally heavy.

Reports for the various States will be found on the following pages:—

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VICTORIA.

Doncaster.

Mr. A. F. Thiele (Doncaster) under date, November 15th, advises as follows:—

The fruit crop on the whole will be light, though some fruits are fair.

Cherries are not grown to any extent now, and where they are they are light crop.

Plums are very light. **Peaches** are light to fair. **Apples** are light: Rome Beauty and Londons are a complete failure, owing to thrip, which is very plentiful. **Pears** are fair in most varieties, but are still thinning. Williams and B. Bosc are the best. **Oranges** are light to fair. **Lemons** are fair to heavy.

This season's crop will be, on the whole, much lighter than last year's crop.

Croydon.

Mr. W. Lipscombe reports, 16/11/23:—

The principal fruits grown here are Apples, Pears, Plums, Quinces, Peaches. The crop prospects are as follows:—

Jonathan **Apples** about half crop. Rymers, heavy; Pomme de Niege, heavy; Stewart's, heavy; Rome Beauty and London Pippin failed owing to heavy plague of thrip. Reinnette and other sorts half crop.

Williams **Pears,** medium crop; B. Bosc and Winter Cole, good crop; other Pears, half crop.

Peaches, medium crop; **Quinces,** medium; **Strawberries,** light; **Loganberry,** good crop. **Cherries,** about half crop. **Plums,** very light.

My orchard is very free from Black Spot. I have taken every precaution in spraying consistently, owing to the season being so wet. I gave my trees extra spray of Bordeaux Mixture and Lime-Sulphur. I also well sprayed the Cherries with Lime-Sulphur, just as the flower buds were opening, and so far have not seen any signs of Brown Rot.

Summarised, the fruit in this district will be about half crop.

East Burwood.

Mr. Geo. Mock, fruitgrower, Vice-President of the Victorian Fruitgrowers' Central Association, reports:—

The principal fruits grown in this district are Apples, Pears, Peaches, Plums, and Quinces.

Prospects for coming season:—**Pears:** Williams, very fair, buds are still shedding. Beurre Bosc, very good. Howell: rather light; Vicar, good; Packham: good. Other varieties very light.

Apples on old trees, most varieties fair, except Five Crown, Yates and Rome Beauty. Jonathans on young trees very light; on older trees, where fertilised, good, but where fertilization is not correct, poor; Pomme de Niege, Reinnette, Stewart's and Shorland Queen, good.

Plums generally light.

Peaches, good. **Quinces,** good where pruned.

Last season Apples were heavy; Pears, light generally; Peaches, medium; Plums, medium; Quinces, medium.

Berries are looking well, especially Gooseberries. Strawberries had a set back with thrip.

Ringwood.

Report by Mr. J. G. Aird, Ringwood (21/11/23):—

The coming crop prospects are:—

Cherries.—Good; but recent rains have destroyed the early varieties.

Plums.—Very light.

Pears.—Medium.

Apples.—Generally light. Some varieties in patches are good, but late blossoming sorts, such as F.C. and Romes have been entirely destroyed by thrip.

Diamond Creek.

Report by Mr. B. Gosstray, Diamond Creek (21/11/23):—

Coming season's prospects—Light.

Last season's crop was abundant, but small owing to dry season.

Box Hill.

Mr. H. H. Hatfield, Box Hill, reports 12/11/23:—

The principal fruits grown are Pears, Peaches, Apples. Last year's crop was average, but owing to the dry growing season, the fruit, on the whole, was small, hence the crop turned out very light.

This season my **Pears** have set as follows: — Williams, medium; B. Bosc, medium; Broom Park, fair; Winter Cole, light; Winter Nelis, next to none; B. Cap., very light; B. Clairgeau, light.

Apples.—Jonathan, light; Yates, very light; Statesman, fair; Rymer, good; Rome Beauty, next to none. I have not got any Londons, but I understand they are off this season.

Peaches are medium so far, but I have been given to understand that Cherries are a failure. I believe that had we had fine weather in October and November, we would have had a good setting, but the strong cold wind with cold showers kept the bees in, and also kept the pollen from mixing, as it was kept cold and damp, and did

not fly about as it would have done had we had some sunny days. I know some think the buds were weak, and only half developed through the long spell of dry weather last summer, but I think there was a good share of well developed buds to make a good setting.

Wantirna.

Report by J. M. Handasyde, Wantirna(20/11/23):—

Crop prospects, 1923-1924:—

Apples.—Early sorts heavy; late, light. Jonathan and Yates, medium. Five Crowns and Romes spoiled by thrip. Pomme de N., Reinnette, heavy.

Pears, medium; Cherries, light; Plums, heavy; Quinces, light; Peaches, early, light; late, heavy.

In 1922-1923 the crops were: Apples: Early sorts, heavy. All Apples bore a good crop except Pomme de Neige and Reinnettes.

Last season the Plums were light, and other crops medium to light. The fruit was clear from Black Spot, Codlin Moth in gardens that were well sprayed, was a fair size and a good color.

Pakenham.

Mr. J. F. Moody, Toomuc Valley Orchards,, Pakenham, writes:

The chief fruit is the Apple, varieties Jonathan, Yates, Rokewood, Statesman, Delicious, Sturmer, King David, and small areas of other varieties.

The crop generally is light. Old **Jonathan** trees vary from good, medium, to light. Young Jonathan and other young trees very light. **Yates**, very light: probably the Yates in this district will not average more than half case per tree. **Rokewoods**, good; **Statesman**, **Delicious**, and **Sturmer**, vary from good to light.

Last season's crop was good on old trees, light on young trees.

The average crop this season is probably only half that of last season.

Upper Beaconsfield.

(Report by R. H. Bunt.)

Apples are the only fruit grown commercially. Taken as a whole, crops are light. Old **Jonathan** trees have set a heavy crop, whilst younger trees have only a light to medium.

Yates are almost a failure. **Five Crown** and **Rome Beauty**, which bloomed late, have been taken by thrip, therefore the crop will be much lighter than last year.

Narre Warren.

Mr. R. E. Haysey reports, 17/11/23. —**Apples**, light to medium. **Pears**, medium. **Peaches** and **Plums**, good.

Somerville.

Messrs. John Brunning & Son, Fruitgrowers and Nurserymen, report, 11/11/23:—

On our own orchards: **Apples**—Jonathan and Reinnette good; Rome Beauty and Five Crown (plenty of bloom); Chandler, Rokewood and Rymer, good.

Pears: Capiamont, fair; Williams, Winter Cole, Clairgeau, Broome Park, good.

Plums.—Grand Duke, fair.

As regards the district generally: —Jonathan, few places good, mostly light; others as above.

Tyabb.

Report by Mr. H. J. Willoughby, President Fruitgrowers' Association, Tyabb:—

Fruits chiefly grown here are Apples, Pears, Plums, Apricots.

In **Apples**, **Jonathan** is the main variety, then Rome Beauty, Five Crown and Reinnette; other varieties include Alfriston, Williams Favourite, Statesman.

Pears.—Chiefly Williams', B. Cap., Vicar, Broom Park.

Prospects for the coming season appear to be as follows:—

Apples.—Jonathans, light; early Apples, medium; late varieties, light. **Pears**, medium; **Plums**, medium to heavy; **Apricots**, light.

A few orchards show indications of heavy crops. Last season the crop was medium; the coming crop does not promise so favourably.

Owing to weather conditions being favourable to Black Spot, orchardists are giving special attention to combating this pest.

The presence of thrip will, to a certain extent, affect the crops of the late blossoming varieties of Apples.

The cool stores have just closed down for the season; eminently satisfactory results having been shown in storage.

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Hastings.

Messrs. J. R. Boulter & Sons report under date Nov. 15th:—

Apples are mainly grown. Varieties: Jonathan, Five Crown, Munro, Statesman, Romes, Stewart's.

Jonathans are generally patchy (with us good). Crowns, too soon to know; all appearance likely to be heavy. Romes, only just blossoming, very late. Munro, heavy. Statesman, failure. Reinnettes, heavy.

Last season crops were medium; in coming season crops are variable, heavy in some lines, light in others.

Red Hill.

Mr. E. Bowring, Red Hill, reports (19/11/23):—

The principal fruits grown are **Apples** (Jon., Romes. Crowns, Yates, Rokewoods, Stewart's, Reinnette and Delicious). These are planted most extensively; many of the older gardens have Pomme de Niege, Hoover, Sturmer, Rymer and Gravenstein; during the past five years heavy plantings of Glengyle (Red Rome) have been made.

Pears are not largely grown, the principal ones being B. Cap., Williams', Keiffers, Vicars, and Packham's.

Cherries not extensively grown, but such as are include Bedfords, Burgdorff's, Eagle Seedling, Florence, and Margarets (season's prospects light).

Strawberries largely grown, the Sunbeam being the most popular. Other varieties, Edith and Margaret (crop light) because of thrip.

The coming season's prospects are light to medium, evidently the weather conditions and thrip, which was bad in the later varieties, such as Five Crowns and Romes, are responsible; Jonathans, where pollenised, show a marked improvement over those not so. Yates very light (almost a failure).

Geelong District.

Mr. E. Weitnauer, Jnr., Batesford, near Geelong, writes (21/11/23):—

The prospects for this season are:

Cherries.—Very light and somewhat late; particularly the earlier sorts. Cherries are fast going out. There appears to be some disease taking them before our eyes. Trees are dying in hundreds.

Plums.—Light to medium; Dark Plums being the better. Grand Duke, Diamonds, Angelina and Early Orleans are the main sorts; Jefferson Gage and Golden Drop and Green Gage being the main light ones.

Prunes are being planted in fair quantities.

Pears for the third season are practically a failure. The best of them are the Williams', Packham's and Capiaumonts. Josephines, Marie Louise, B. Bosc are a complete failure for the third year. Vicars have failed completely, also Black Achan.

There is less fruit in this district than last year, particularly in Apples and Apricots.

Wandin Yallock.

Mr. J. S. Gaudion reports, 20/11/23:—

The principal fruits grown are Cherries, Apples, Pears, Plums, Peaches, Lemons, Oranges, Raspberries, Blackberries, Strawberries, Loganberries.

Crop prospects:—

Cherries—Heavy (Florence, Margaret, Bedfords).

Apples — Medium (Five Crown, Rome Beauty, Jonathan).

Pears — (W.B.C., Winter Cole), fairly good.

Plums—(Burbank, Diamond and Grand Duke), heavy.

Peaches — Heavy (Red Cling, Pullar's Cling and Comet).

Lemons—(Lisbon), light.

Passion-fruit—Looking well. **Berries**, good crop.

Last season's crop was heavy. This season medium.

Spraying is being done, pests well under; so far practically no Brown Rot.

Ardmona.

Mr. E. L. Young, Ardmona, writes, 16/11/23:—Prospects for the coming season are:—

Apricots, good; **Pears** (Williams), heavy; **Cling Peaches**, medium; early **Dessert Peaches**, light; **Prunes** promise to be medium; **Nectarines**, light.

Last season, Apricots were light, Pears medium, and Peaches heavy.

Shepparton.

Mr. T. C. James, Grahamvale, Shepparton, reports (17/11/23):—

The principal fruits grown in this district are **Apricots, Peaches** and **Pears**, also **Oranges** and **Lemons**, principally Washington Navels and Lisbon Lemons.

In **Apricots**, Moorpark are in the majority. Blenheim, Tilton, Hemskirk, Mansfield Seedling, Royal, and Rose-de-Vaucluse are grown. In the early varieties Newcastle and Oullins predominate.

Peaches are mostly canning sorts, and include Clings, Tuscan, Levis, Orange Sim's, Phillips, Goodman's, and Pullar's; in freestones, Elberta, Crawford and Lady Palmerston are grown; the early varieties are mostly Highs and Hales.

The Pears grown are mostly Williams.

Crops last season were heavy, except Apricots, which were light.

Prospects for this season are:—**Apricots**, heavy; **Peaches** and **Pears**, medium.

Markets are the burning question here, as young orchards under Closer Settlement are coming into bearing, as well as Soldier Settlements and increasing the output yearly.

Lancaster.

Mr. W. F. Cooper writes, 16/11/23: The principal fruits are Apricots, Peaches, Pears, and a few Prunes.

Anticipations. — **Apricots**, heavy; **Peaches** (Early), light. **Late Peaches**, medium to heavy. **Pears** and **Prunes**, heavy setting so far.

Last season all these varieties were heavy.

Most growers are very dissatisfied with the treatment meted out to Apricots and freestone Peaches in the Government bounty proposals: seeing it's a bounty on the processed article, they contend that dried Peaches and Apricots should have been included.

Nyah.

(Report by A. R. Lawrence.)

Blockholders on the Nyah Irrigation Settlements are growing principally **Vine** fruits.

Citrus areas are gradually being reduced and planted over to vines. Owing to the continuous wet weather during the winter, quite a number of blocks became flooded through faulty drainage systems, and were under water for days (in some cases weeks).

The settlers who had their citrus flooded suffered severely; and that 40 acres died in a few days from flooding, is a conservative estimate.

Citrus trees on higher levels have blossomed heavily, and **prospects for a full crop are promising.**

Sultanas predominate in the dried fruits grown at Nyah.

Currants and **Gordos** are not so popular, while Dorodillas occupy approximately 200 acres in this settlement.

The dried fruit pack this season will, on present appearances, be the heaviest packed to date.

The younger vines especially are showing very heavy crops.

There is at present a black cloud in the dried fruit sky—and that is, to find a payable market. Dried fruit production has so increased that of the coming pack it is estimated that 80 per cent. will have to be exported, and owing to the slump in the market overseas, the outlook, to say the least, is not encouraging.

Nyah, unfortunately, is afflicted with a small percentage of growers, who, seeing a critical time ahead, are endeavouring to market their crops outside the A.D.F.A., and thus benefit by the loyalty of their fellow-growers.

Quantong.

Mr. C. H. Jost, manager of the Quantong Fruitgrowers' Society, reports:—

The fruits grown in this district include Apples, Pears, Quinces, Figs, Grapes, Peaches, Apricots and Plums, all of which are light.

Last season the crops were heavy all round, excepting Grapes.

The principal varieties of Apples are Cleo., Jon., Rokewood, Rome Beauty, Dunn's and Five Crown (all light).

South Australia.

Mr. G. Quinn, Horticultural Instructor, writes (21/11/23):—

The estimates of the coming fruit crop, as far as could be judged in early November, have been supplied me by the Orchard Instructors in the districts mentioned in the table attached.

These indicate the promise of good average crops of Pears, Oranges, Almonds, and Grapes of various kinds. Plums are fair to poor; Apricots, Peaches and Nectarines only fair to light; and Apples are promising from light to good, but do not promise a heavy crop.

Recorded Early November, 1923.

Apricots: Light. Peaches and **Nectarines: On Adelaide Plains**, medium, elsewhere light. **Plums**: Light to medium.

Apples. — South-east, light; Mt. Lofty Ranges, fair promise; Northern, good. **Pears**: Fair to good. **Cherries**: Fair. **Berries**: Good promise.

Oranges and **Lemons**: Prospects good. **Almonds**: Medium. **Loquats**: Good.

Grapes (Wine and Table): Adelaide Plains and Northern districts, fair promise; S. East, Mt. Lofty Ranges and Murray Valley, good promise.

Currants, Sultanas and **Gordos**: Good promise.

RIVER MURRAY.

Report by Mr. C. G. Savage, Deputy Horticultural Instructor, Berri, South Australia (19/11/23):—

The coming season's crop anticipations are:—

Vines. — Sultanas, showing very heavy bloom; should give heavy yield, and be in advance of last season.

Currants.—Good showing of flowers, appears to be setting well; should be equal to 1922-3 returns.

Gordos.—Give promise of heavy yields; should be heavier than previous year.

White Malaga (Waltham Cross).—Also gives every indication of a record crop.

Doradillo. — Showing very good; should be up to average. The vines are still in flower, so definite statements cannot be given; probably the vines, as a whole in the district, have never looked better nor given a better showing of flower bunches.

Peaches.—Early Crawford—Fair to good. **Elberta** — Good (principal variety grown. **Lady Palmerston** and **Salwey**—Good.

Peaches on the whole are showing a heavier setting than in 1922.

Nectarines.—Principally Goldmine —Light to medium, good in some places; about same as last season.

Apricots.—Moorpark—Light to medium. Royal—Light to heavy.

The crop will be light compared with 1922/23 returns.

Oranges.—Principally Washington Navel; smaller planting of Late Valencia and Mediterranean Sweet.

Mandarins—Beauty of Glen Retreat, Darcy's and a few Emperors.

Lemons.—Mainly Lisbon.

All citrus trees promise very heavy returns far in advance of last season.

Pears.—Williams'—Mainly for drying; heavy crop; should give heavier yields than last season. Glou Morceau—Light to medium, probably about equal to last crop.

Prunes.—D'Agen—Heavy. Splendour—Fair to good. Sugar—Medium. Robe de Sargeant—Good.

Prunes should carry a greater weight than in the 1922-23 season.

Apples.—Fair; about same as previous crop. Only a few trees grown in district.

Almonds.—Brande's Jordan — Medium. White Nonpareil—Medium to good. Hatch's Nonpareil—Heavy, I.X.L.—Fair. Ne Plus Ultra—Good.

The returns will probably be lighter than last season.

Bangalore.

Mr. A. F. Morant, Bangalore, via Morgan, reports under date (17/11/23):—

The principal crops grown are Sultanas, Currants, Gordos (Doradillos for distillery), Malagas, Apricots (Moorpark and Royals), a few Peaches and Pears (Williams), and Oranges (Navels, Valencia and commons).

Coming Season's Prospects.—Apricots, very light; Zante Currants, Sultanas, Pears, Gordos, very heavy; Doradillos and Malagas, medium; Oranges, patchy; Peaches, rather light.

The crops last season were: Apricots, very heavy; Zante Currants, light; Sultanas, medium; Pears, very light; Gordos, medium; Doradillos and Malagas, medium; Oranges, very light; Peaches, medium.

Last season the Currant, Pear and Orange crops were destroyed by a strong and hot north wind in October.

This season Apricots had light blossoming; gales during setting. Oranges very heavy blossoming, but we had gales during setting and subsequently.

Currants.—Very heavy show of bunches; blossoming very unevenly, but seem to be setting well.

Waikerie.

A correspondent writes (17/11/23):

Crop Prospects.—Sultanas, Currants, Lexias and Citrus show promise of a good yield; Apricots, light; Peaches, good; Nectarines, very light.

Ramco.

Report by Mr. Jno. J. Odgers, Ramco,, River Murray (19/11/23):—

Principal fruits.—Being a "drying" district, there are:—

Trees. — Apricots (Moor Park), Peaches (Elberta, Salway and Palmerston, late); Nectarines (Goldmine and Stanwick). Pears (Duchess); Citrus (Washington Navel and Valencia Late).

Vines.—Sultana, Zante Currant and Waltham Cross (locally known as White Malaga).

Crop report.—**Apricots.**—Light to medium. (Last season heavy).

Peaches.—Elberta light; late kinds heavy. (Last season medium).

Nectarines.—Goldmine and Stanwick medium to heavy. (Last season—Goldmine medium, Stanwick light).

Pears. — Heavy, but exceptional winds this week may considerably reduce. (Last season light to medium, strong winds at Xmas causing big fall.)

Citrus.—Medium to heavy, though rather early to say. (Last season light.)

Sultanas.—Medium to heavy. (Last season, light to medium.)

Currants.—Heavy. (Last season medium.

Gordo.—Heavy. (Last season medium.)

It is rather early to speak definitely of the vines, but present showing is as given.

Gumeracha.

Mr. J. B. Randell, M.L.A., Gumeracha, reports (19/11/23):—

Principal fruits grown, Apples, Pears, Plums, with a few small plantings of Peach, Apricot and Cherry.

In **Apples**, Cleos., Jonathan, Stone Pippin and Rome Beauty easily predominate. Williams (Duchess) in **Pears**, and Golden Drop, and Prune de Agen (French Prune) in **Plums**. There are, of course, quite a number of varieties beside these grown to a lesser extent.

Crop Prospects.—In **Apples** the promise is for a medium crop in most cases, some orchards, however, are showing for a heavy crop. Rome Beauty heavy to very heavy in most orchards. **Pears**, light to medium. **Plums**, light to medium.

The blossoming has been heavy to very heavy in most orchards, but probably owing to unseasonable weather the setting has not been in any degree proportionate to the blossoming.

Last season's crop was light to very light, some varieties standing out almost altogether.

The ensuing crop should be from two to three times as large, if nothing unforseen occurs.

The orchards are looking healthy and clean, but a continuation of showery weather up to the present is making some apprehensive regarding fusicladium. Lime-Sulphur, Bordeaux, and Burgundy solutions, according to the individual fancy of the grower, are being applied to prevent this disease; while the first and in some cases the second application of Arsenate of Lead has been made for Codlin Moth.

Cold Storage Successful.

District Items.—The first season's experience with the local **Cold Store** is now nearly concluded, and has proved very satisfactory to the shareholders; fruit has kept excellently, and high prices have been obtained for some months past.

The general opinion expressed by participants is that the establishment of the store has been a good move; although a good deal of trepidation was shown when the scheme was first inaugurated.

Last season's crop was insufficient to fill all the chambers, but it is expected that this year's crop will not be accommodated to the extent of more than half.

A small amount of planting has been done, but owing to the uncertainty of markets, most growers are disinclined to extend their orchard area to any considerable extent.

Dairying, with small areas (seldom exceeding four or five acres) devoted to the growth of Potatoes, Tomatoes, etc., together with the keeping of a few sheep and pigs, are the lines which occupy the balance of most holdings.

Nuriootpa.

Report by Mr. A. B. Robin, Nuriootpa (17/11/23):—

The principal fruits grown in this district (exclusive of Wine Grapes) are:—

Apples (mostly Cleos., also Dunn's, Rome Beauty): Crop prospects **good.**

Pears (Williams', Glou Morceau): **Good.**

Apricots (Moor Park): **Light.**

Peaches (Elberta, Salway and Clings for canning): **Light.**

Plums (Jefferson, Golden Drop), **Prunes** (D'Agen, Splendour, Robe de Sargent): **Light to Medium** for some sorts.

Currants: Too early to estimate, but prospects so far favour a good crop.

The failure of the crop of stone fruit is due, in a large measure, to excessive rain and storms during early spring. Within a period of five months, the average annual rainfall was exceeded by over two inches, and in consequence of these abnormal conditions, a great number of Apricot and Peach trees throughout the district have either perished or received injury from which it will take some years to recover. Even land which is tile or surface drained has been in a water-logged condition for months.

Angaston.

Messrs. Trescowthick Bros., Angaston, write under date 16/11/23:—

Apples. — Chiefly Cleos. grown. Crop, light to heavy. Average, medium. Fruit clean. Bordeaux spray

used. A little fusicladium showing on foliage in places.

Apricots.—Moor Parks grown. Very light. A few medium crops. Fruit badly pitted by hail. Hundreds of young trees killed by heavy spring rains. Also a number of trees of bearing age.

Peaches.—Elbertas, medium. Salwey's: A large number being worked over to Clings.

Prunes. — D'Agen: Medium to heavy. French: Medium. Splendour: Light to medium.

Pears.—Bartlett: Medium to heavy. Glou Morceau: Heavy.

Zante Currants.—These are showing a heavy crop, and few signs of Black Spot.

Wine Grapes.—The promise of a heavy crop.

Last year's Apple crop was light. Apricots, heavy. Pears, medium. Prunes, medium. Currants, medium.

Generally speaking, this season will be a fair average one, with the exception of Apricots.

The winter has been exceptionally wet, retarding ploughing operations, and in places the ground has set very hard, making cultivation difficult.

Upper Sturt.

Report by Mr. P. G. Descombe, Upper Sturt, S.A. (20/11/23):—

The principal varieties grown here are:—

Apples—(Rome Beauty, Jonathan, Strawberry Pippin, Buncombe, Maiden's Blush, Reinnette).

Pears.—Williams', B. Bosc, and Kieffer.

Last season's crop of Apples, on the whole, were very light, Pears medium, and Plums heavy.

The coming season's prospects are good. All varieties of Apples—Heavy. Pears—Medium. Plums—Light, with exception of a few Japs (Burbank, October Purple)—Medium.

Balhannah.

Report by H. N. Wicks, Balhannah (16/11/23):—

The winter has proved one of the most severe on record in this State, the excessive rainfall having caused very serious damage in orchards and gardens. Repeated floods in the Torrens Valley did a lot of damage, early Tomato growers having suffered severely.

The incessant rains in this district retarded the work generally; few orchards are running to schedule.

At the time of writing the weather continues to be cool, with frequent cold stormy snaps, which hinder the spraying and speeds up the Black Spot. This is showing on Pears, and it will be necessary to keep the pump going at every opportunity to combat it if the present weather persists.

The chief lines grown in this district are **Plums, Prunes, Apples and Pears.**

The setting of **Plums** appears to be patchy and indifferent.

Prunes in some varieties are good, the Prune d'Agen easily taking first place. The writer has the heaviest setting of this line ever experienced, and with the wet spring they promise to be a very fine sample. According to reports, **Pears** are not generally heavy, except in certain varieties. Duchess seem to have set a good crop in this district, and promise well.

Apples.—Principal varieties are Jon., Rome, King David, London, Stone Pippin, Rokewood, Statesman. Generally speaking, Jonathan has set a heavy crop.

Pollenisation has again proved to be a necessity. I have placed a tin with a limb of blossom in every tree in a block of about five to six acres of **Jonathans** this season. This was no small job in itself, but has proved to be

a paying proposition,

as this block has set a crop for the first time in its history.

Right opposite is another block of slightly smaller area which was unpollenised, and which has set a very indifferent crop compared with the first mentioned plot.

It is a very noticeable fact this season that the **hard pruned Jonathans** are carrying the heaviest crops, while the unpruned trees are generally speaking a failure.

King David has set a heavy crop, and while it is yet too soon to state definitely just what the **Romes** and **Londons** are going to do, they promise exceptionally well, and the earlier trees in secluded spots have set a bumper crop. **Statesman** is reported off in some orchards, while other growers report a heavy setting for the third time in succession. **Rokewood** and **Stone Pippin** both generally good.

Last season the crops were light: this season is full of promise: growers are looking forward to a prosperous season in 1924.

Norton's Summit.

Mr. C. W. Giles, Norton's Summit, reports (17/11/23):—

Apples. — R.B., Jon., Reinnette, Cleo., Dunn's, etc. Prospects good, if weather becomes fine.

Pears. — Medium; **Plums,** light; **Cherries,** fair.

Cudlee Creek.

Report by Fletcher B. James, Sec. Cudlee Creek Co-op. Society Ltd. (cold store):—

Principal Fruits.—Apples, Pears, Plums.

Prospects: — Apples, medium to heavy. Romes showing for heavy crop: too early to say yet. **Pears,** light. **Plums,** medium (some places light and some heavy).

Last year's crop was generally a failure, although here and there was an occasional garden with a fair sprinkling.

This year opened up with wonderful prospects, but when swelling time came most varieties shed a large quantity of fruit.

Fusicladium was practically unnoticeable in the early spraying, but has developed this last week. In the beginning, we never saw the trees cleaner.

The red spider seems to be making itself felt more so now than previous years. Oh, well, let us spray.

Paradise.

Mr. J. Donaldson, Paradise, reports (18/11/23):—

Apricots.—This season promises to be light, but taking into consideration that the fruit will be large, may account for a medium crop.

Peaches.—The early varieties promise a fair crop; but many of the later kinds suitable for canning will be very light.

Pears are reported to be a good crop. Have not had returns from Clare and Angaston.

Apples.—If nothing happens, there will be a good crop this year; they are showing well.

Plums.—Reports of good crops are coming to hand, and promise well this season.

Hectorville.

Messrs. T. B. Robson & Son, Hectorville, S.A., report (16/11/23) re crop prospects:—

Apricots (Newcastle, Oullins), good to fair; Moorparks, light to fair (last season heavy).

Peaches.—Early Crawford, Elberta, Salway, light to fair (last season, very heavy).

Plums, fair. **Prunes,** medium.

Oranges.—Blossom late: cannot report yet, last season light to medium.

Grapes are looking well: **Loquats** medium.

Marion.

Report by Mr. George Western, Marion (19/11/23):—

The principal fruits grown in this district are Grapes, Apricots and Peaches.

Grapes are showing well, but as yet have not set; but anticipate a good crop.

Apricots.—Newcastle Early, medium on the whole, but very patchy in most orchards. Moorpark's very light.

Peaches.—Canning varieties very light indeed, especially Clingstones.

Last season's crop of the varieties of fruit mentioned were very heavy. This year, owing, I presume, partly to last year's heavy crop, and especially to the cold wet weather that caught both the Clingstone Peaches and also the Moorpark Apricots when in full bloom, are the reasons for the failure of the stone fruits this season in this district.

Queensland

Stanthorpe.

A correspondent from Stanthorpe writes (21/11/23):—

The principal crops grown here are **Apples** (chiefly Gravenstein, Jonathan, Munros, Delicious and Granny Smith), **Pears, Peaches** (chiefly dessert), **Plums** (Jap. and English), also **Apricots** and **Cherries. Grapes** (table) are extensively grown, and do exceedingly well.

Prospects: — **Apples**, medium; stone fruits, medium to heavy; **Grapes**, heavy.

The long-looked-for "Fruit Marketing Act" has become law, and growers now possess all the powers necessary to control the marketing of their produce.

The control of the fruit marketing is now in the hands of a committee of growers, representative, and elected by the various sections, comprising —Banana (2), Citrus (2), Pineapple (2), Deciduous (2), and other fruits (1), with one member nominated by the Council of Agriculture.

The Committee hopes to remove many of the disabilities at present prevalent, and has power to declare standards, enter into agreements with agents, transportation, inspection, opening and extending markets, etc., and generally to advance growers' interests.

The criticism by your Queensland correspondent in last issue misrepresents the position in connection with the Act.

Large quantities of vegetables are grown in the district, chiefly Tomatoes, Cabbage, Potatoes, Peas and Beans. The pulp manufactured from Stanthorpe Tomatoes is regarded as the best produced in Australia.

Thulimbah.

Report by Mr. J. Lumb, Thulimbah, Q. (21/11/23):—

The principal fruits grown are:—Stone fruits: Peaches, Plums (English and Japanese), few Apricots, Apples, Pears and Grapes. The principal varieties, I should say, are:—

Peaches.—High's Early, Hale's, Wiggins, Kia Ora, Pullar's.

Plums.—Diamond, President, Wickson, Burbank, Santa Rosa, Angelina, Burdett.

Apples.—Jonathan, Delicious, Gravenstein, Granny Smith.

Pear.—Bon Chretien, Keiffer, Packham's.

Grapes. — Black Prince, Gordo Blanco, Muscat, Hambro.

Prospects for the coming season: —Apples, light; stone fruits, medium; Grapes, fairly heavy.

And to last year I should say the reverse:—Stone fruits, fairly light; Apples, rather heavy.

Redland Bay.

Mr. James Collins, Redland Bay (Q.), reports (21/11/23):—

The principal fruits grown in this district are Pineapples, citrus (Oranges, Mandarins and Lemons), Custard Apples and Bananas.

The **Pineapple** crop promises to be up to the usual average, but will not be quite so early this season.

The **citrus crop** promises to be fairly heavy this time; Oranges, including the Navel, are showing up well, and should the dry weather conditions, which at present exists, give place to generous rainfalls, a good crop should be harvested. Mandarins and Lemons are also promising good crops.

Custard Apples.—As the trees of this fruit (in most cases) are only just coming into new growth, and as a rule no fruit begins to set before New Year, it is too early to say what are the crop prospects for this fruit, much will depend upon climatic conditions during January and February.

Bananas are looking well, especially the Lady Finger variety, and will produce heavily.

Last year's crop of fruit, taken all round, was very good, in some instances record crops were secured.

Custard Apples seem to be the most popular fruit in this district, large quantities being planted every year.

Howard.

Report by Mr. E. J. Stafford, Howard (Q.) (17/11/23):—

The principal fruits grown in the Howard district are Oranges, Mandarins, Lemons and Pineapples; also there is a fair amount of **Sugar Cane** grown. At Pealba, 15 miles from Howard, they grow Pineapples, Bananas and Cane.

At Howard and Burrum the coming crop will be fairly good if we get the usual rain.

Pink wax scale has a fair hold; the growers are busy spraying.

Last year's crop was fair, and prices good all through.

A little extra planting is going on, but not to any extent.

WHAT OUR READERS ARE THINKING.

Notes from Various Sources.

Self-Reliance, Not Dependence on Government.

A sturdy fruitgrower, Mr. H. H. Hatfield, of Box Hill, sends along these comments to the "Fruit World":

"Keep on as you have been doing. Advise fruitgrowers to spray well, and manure well; and be sure to drain well and thin out overloaded trees; then, if they cultivate well, they will get good fruit and then they need not be afraid of inspectors or bad markets; for, in the long run, good fruit will sell and pay the grower.

"Advise them to keep away from Governments and rely on themselves, for I believe there is nothing to be gained by leaving too much to 'Father Government.' "

Freight Reduction Essential.

Hastings.—Messrs. J. R. Boulter & Sons report:—

Re **local conditions. Spraying** for Codlin Moth was delayed through rain. We are clean as regards Spot up to now. We sprayed with Bordeaux.

We hope next season export will be better than last. We shipped 4,000 and netted less than 1/- per case. We have been shipping for over twenty years, and the last two seasons have been disastrous. Nothing wrong with London prices; freight and other charges all wrong. If we secure a reduction in freight, no bounty is necessary.

New Grading Regulations.

If the Inspector has a Bad Night?

From Latrobe, Tasmania, there comes this letter from Mr. A. Boatwright, a "Fruit World" subscriber of sixteen years' standing:—

"'The Fruit World' should be in every orchardist's home. I am always recommending it. I think the articles you have published re the regulations made by the Commonwealth Government should meet the approval of all who grow Apples and Pears for export. The conditions are too drastic. What with regulations and inspectors, it is hard to know, when the fruit is packed and forwarded for shipment, whether the inspector had a bad night or not. There may be a spot or two on a few Apples and if so he can condemn the lot.

Fancy having to open cases to see if there is more than 5 per cent. of spotted fruits! It means that no orchardist will pack for the first grade, so that the standard grade will be adopted in most instances.

"Freights at 4/6 are too high to allow the shipper any chance of making Apple export pay."

Held Over.

Owing to the space devoted to crop reports, several interesting articles have been held over: (1) Correspondence from readers on various topics; (2) Dried Fruits Industry of California (by E. J. Roberts); Cherry Growing in Australia; Report from Californian Citrus Exchange.

The first condition of goodness is something to love; the second is something to reverence. — George Eliot.

Factors Affecting the Vineyard Yield.

STOCK : PRUNING : CINCTURING: SUGAR CONTENTS AT TIME OF HARVEST.

By A. G. Lyon, Agricultural Scientist to the Mildura Vineyards Protection Board.

(Continued from page 393, November "Fruit World.")

IN CONSIDERING THE FACTORS which affect the yield of Australian vineyards, we continue in this issue the theme commenced in last month's "Fruit World," when Mr. A. G. Lyon, Agricultural Scientist to the Mildura Vineyards' Protection Board, dealt with irrigation, drainage, aeration of soils, ploughing, mulching, manuring and liming. Continuing, Mr. Lyon writes as follows:—

The Bearing Qualities of the Stock.

It is generally accepted among Viticulturists that it is preferable to secure cuttings from vines that are good bearers.

Selection within the variety has been proved advantageous in other branches of agriculture.

At the same time we must recognise that, as most of our vines can be traced back through three or four reproductions by cuttings, there is a possibility that environment is the dominant factor. Still, in the absence of data, it is strongly recommended that cuttings be taken from good bearers, and that the bearing portion of a cane be utilised.

The Pruning of the Vine.

That pruning of the vine has an important bearing on yield is established. The distribution of the bearing wood and the probable position of the annual wood for subsequent prunings must be kept in mind.

On the whole one might say that our pruning methods are very satisfactory, though beginners are inclined to leave too many canes, on cane bearing varieties.

The error rarely affects the yield for the current season, but many have far-reaching effects in subsequent years, by spoiling the shape and lessening the compactness of the vine. The type of cane is important; woody, rather than pithy cane being most satisfactory.

Pruning to laterals has often proved a correction where light crops are recurring on vines which have developed light pithy canes.

On most of our cane-bearing varieties it is necessary to provide for suitable laterals by pinching or light topping, in the previous spring.

Cincturing or Girdling.

In most seasons this is an essential operation to secure setting of fruit on Currant vines.

It is very possible that cincturing of the Sultanas will come into more general favour. As far as I know the matter has not been systematically tested in our district.

We have pleasure in publishing herewith the balance of Mr. A. G. Lyon's paper. In the November issue of the "Fruit World," the first instalment of this interesting and valuable article was published.

Our contributor then gave close details, and stressed several important points relating to the water supply, underdrainage, ploughing, and manuring.

In the article herewith Mr. Lyon deals with the stock, pruning, cincturing, and the sugar contents at the time of harvest.

Field observations indicate that cincturing lessens the sugar contents of the Grape; but this disadvantage is more than counterbalanced by the increase in total yield.

It is generally held that an increase in yield almost invariably follows the first cincturing, while opinions are divided as to the advisability of regularly cincturing the sultana.

The Age and Previous History of the Vineyard.

A recurrence of light yields is often attributed to the fact that the vines have been bearing for a great number of years.

It is difficult to decide whether the light yields are due to the age of the vine, or to the fact that the producing power of the land has been lessened by constant use. Probably both factors influence yield.

The appearance of the vines themselves must be the chief guide in this case. Where wooden cores and exposed dead wood from drastic cutting exist to any great extent, it is probable that replanting would be warranted.

Except where obvious disabilities, such as salt, seepage or water-logging exist, the producing power of even our oldest irrigated lands appear to be satisfactory under correct treatment.

The Sugar Contents at Time of Harvest.

That loss of weight can result from too early picking has been established. The general introduction of the Baume test as a measure for ripeness constitutes a decided advance in our viticultural practice. Records taken twice a week just previous to the ripening season invariably show decided increase in density.

It is extremely difficult to set up general standards, as variations occur due to weather, to the season, to the class of soil, and possibly even to the hour of testing.

As this subject is of special interest to many growers, the following recommendations will be found helpful:—

(1) Test at the same hour each day, preferably at or after midday.

(2) Where possible, test only on a normal summer day.

(3) Test twice weekly, at least.

(4) Graph results (date against Baume reading) for interpretation.

(5) Remember that a falsely high reading results if berries wither either from shortage of soil water or from delay in picking.

(6) At the present state of our investigations, accept the levelling of readings for a period of four days in clear weather as the period of maximum ripeness.

(7) Use records from a previous year as a guide to the standard test for your vineyard.

(8) In the actual operation of testing, an instrument whose graduations cease at 20, is more easily read. For greater accuracy, test at about the same temperature on each occasion. Obtain the whole of the juice from each sample, before taking whole of portion for test. Obtain an average sample by taking portions from top and bottom of several average bunches. Test the instrument to see that it is floating freely in the juice.

Failure to secure good returns is often due to neglect of one small but vital operation; and this is specially disheartening when earnest work has been expended in all other directions.

If you are failing to secure satisfactory yields, I hope that at least some of you may find the reason in one or more of the factors mentioned above.

IT CAN'T BE DONE.

Somebody said it couldn't be done,
But he with a chuckle replied—
That maybe it couldn't, but he would be one
Who wouldn't say so till he tried.
So he buckled right in, with the trace of a grin
On his face; if he worried, he hid it.
He started to sing as he tackled the thing
That couldn't be done—**and he did it!**

TASMANIA

EXPORT NOTES : A NEW DEHYDRATOR
SEASONABLE ORCHARD NOTES : NEWS AND NOTES
(By Our Correspondent.)

OCTOBER AND NOVEMBER of this year have proved two of the wettest months on record. Practically every other day rain has fallen, adversely affecting the setting and development of fruits.

Black Spot is very prevalent amongst Pears and Apples. This disease has had a big effect on the crops, especially Pears and the susceptible varieties of Apples, such as Cleopatra, Crofton, French Crab, etc.

The difficulty has been in many cases to obtain a fine enough period for the application of sprays.

The saturated condition of the soil has been responsible for the loss of numbers of trees, especially in younger orchards which are just coming into bearing.

The **Pear** crop promises to be a light one again this season, most varieties having only a light setting, and Black Spot is prevalent.

Apples will also only be medium to light. Scarlet Nonpareils have fallen heavily. Cox's Orange Pippin, Jonathan, Delicious, Crofton, and other dessert sorts are also very patchy.

Up to the time of writing, the **Apricots** have held well. There is promise of a heavy crop of this fruit, the quality of which should be exceptionally good. Small fruits should also be plentiful.

Overseas Fruit Markets.—Sir Henry Jones has returned from his recent trip to Europe and America, and addressed meetings in the Huon, Derwent Valley and other fruit centres as to his investigations and recommendations regarding the overseas fruit trade.

Sir Henry practically assures us that no further trouble may be looked for in future shipments from "brown heart," or other causes due to inefficient carriage.

He is emphatic that the main consideration for successful carriage of fruit is **that the temperature should be brought down as soon as possible after loading,** as the bulk of the damage is occasioned during the period that hold temperatures are being reduced to 32 degrees F. This often takes as much as fourteen days, the fruit developing and maturing until the reduction is effected.

Sir Henry deprecates the indiscriminate despatch of cables, which occurred last season as to the bad condition the fruit was arriving in England at the opening of the markets. He states that these were very often furnished on the basis of results from a few bad cases of fruit. Moreover, some vessels that were reported to have delivered their cargoes in bad order, he found, on investigation, to have only a small proportion damaged

This sort of business is no good to the fruitgrower. Besides having the tendency to lowering the market prices in England, it brings down the value of fruit in Tasmania, enabling the speculator to purchase at a lower figure on an incorrect market report

Sir Henry states that during the coming season he has made arrangements whereby all cables in relation to the arrival of cargoes will be despatched through a committee of agents. This is a move in the right direction, but the fruitgrower requires his own representative to be on it also.

A New Dehydrator.—Mr. J. H. Morton has recently arrived in Tasmania for the purpose of considering the possibilities from a dehydration viewpoint.

The successful dehydration of Apricots at the plant established at Bridgewater, has encouraged growers in the Sandford and Cambridge districts to embark on a scheme for the erection of a dehydrator in their district. Glenorchy growers are also interested, and there is a probability that both areas will have their own plants in time to process the coming season's crops.

Commonwealth Line of Steamers.—During the past month Mr. H. Larkin, manager of the Commonwealth Line of Steamers, visited Tasmania with the object of getting into touch with exporters of fresh fruit and other primary products. Mr. Larkin met representative gatherings of fruitgrowers, exporters, and agents: although strong representations were made for a reduction in freights, Mr. Larkin was emphatic that he could not hold out any hopes in this direction **until harbour and port charges were reduced.**

The possibilities of the South American trade were also brought to his notice, growers requesting that consideration should be given toward obtaining a service to Buenos Aires and other ports. Mr. Larkin promised to go carefully into this matter.

A vote of appreciation was passed for the action of the Commonwealth Line in reducing freights during the past season. This represented a saving to the industry direct and indirectly of £40,000.

SECOND SPRAYINGS to control the Codlin Moth should be applied during the month. These will be necessary in badly infested districts, also a third spray about the beginning of January.

Black Spot.—Where Black Spot is showing spray to arrest its development: Use Lime-Sulphur at a strength of 1-60, or weak Bordeaux Mixture. In cases of bad infection, many growers are pinning their faith to the Bordeaux Mixture. Care should be taken in applying this to tender skinned varieties, such as Cox's Orange Pippin, Jonathan, Scarlet Nonpariel, as it is liable to russet the skins.

Re-worked Fruit Trees.—These will require attention. All shoots coming from the tree butts other than from the grafts should be removed.

Ties may be loosened if cutting into the bark.

Very often a graft will "hang fire" for a few weeks before commencing to shoot, so it is advisable to give backward ones every chance before deciding they have missed. If the bark remains plump they still may come into growth.

Where grafts have missed, it is desirable to leave a growth shoot to develop in a convenient position for budding next spring.

Cultivation. — The orchard soil, having been brought to a good tilth, cultivation should now be carried out mainly with the Spring tooth harrows. These should be kept going, preventing the surface from forming a crust.

General.—Case timber should be obtained as soon as possible, and stacked in "open" tiers so as to allow drying out of moisture.

During the month a careful inspection should be made of the orchard varieties in order to estimate crops. This is worth a few hours of any fruitgrower's time, but is often neglected.

The possession of a properly figured estimate will not only be of assistance in ordinary packing material, but allow the grower to more effectively outline his policy of marketing and despatch of crops.

STATE ADVISORY BOARD.

A meeting of the State Advisory Board was held at Hobart on the 2nd November. There were present—Messrs. Arthur Davies (Chairman), N. Campbell, M.H.R., T. J. Eddington, Sir Henry Jones, Messrs. V. J. Skinner, F. Walker, V. Shoobridge, J. P. Piggott, M.H.A., H. D. Calvert, B. J. Pearsall, and the Secretary, Mr. P. H. Thomas. Apology received from Mr. Heyward. The new Minister for Agriculture (Mr. J. Belton, M.H.R.,) and Sir Henry Jones were welcomed.

Federal Grading Regulations.—The Secretary reported that the objectionable clauses had been removed.

Bonus on Fruit Exports.—It was resolved to request the Federal Government to grant a bounty of ½d. per lb., equivalent to 10d. per case, upon all fresh Apples exported from Australia during the 1924 season; and a bounty of 1d. per lb. upon all evaporated Apples exported."

Sir Henry Jones' Visit to England.—Sir Henry Jones addressed the meeting, and outlined the results of his investigation in England and Europe in regard to the overseas fruit trade, and also made certain recommendations in regards to future shipments.

Insurance Fund.—Accounts totalling £480 were passed for payment, including Wakefield ("Brownheart") investigation, £318; preliminary action against shipping companies, £150. Decided to invest the balance in short term gilt edge securities.

The Pineapple Industry

Interesting Notes

(By Our Queensland Correspondent)

IN IMPORTANCE the Pineapple ranks next to the Banana in Queensland. Numerous varieties were imported, but few of these are now included.

The **Smooth-leaf Cayenne** is most in favour, though the Singapore smooth-leaf is freely intermixed in some plantations. The fruit of the latter is larger (a specimen being exhibited at Townsville weighing 22lbs), but softer and has not good keeping qualities.

Amongst rough-leaved varieties, the common rough and **Ripley Queen** are retained—principally the latter.

Pineapples Growing near Glasshouse Mountains, Queensland.

Decided to obtain from National Fruit Trade Association in London details re progress of claims for damaged consignments.

Executive Committee. — Messrs. Campbell and Pearsall were elected to the present committee.

State and Export Standards.—Decided to recommend the Standardisation Board to review the Tasmanian law in connection with standardisation, grading and branding, in order that same may be brought into line with the Commonwealth regulations to prevent duplication.

Uniform Branding.—Decided to get into touch with all State Advisory Boards with a view to securing one system of branding of cases for all States, both for inter-state and overseas Apple and Pear exports.

Two locally-raised varieties, Alexander and McGregor, are some improvement on originals. It is claimed for McGregor that the fruit is not liable to the trouble known as "black heart," which is more or less present in the rough pines during winter months in the extreme southern area.

Though not exacting (in other respects than perfect drainage) in regard to the nature of soil, the best prices are produced on a moderately light deep loam and under a moderate rainfall. In heavier soils the sugar contents are much lower, and the general qualities of the fruit more or less reduced.

Well within the tropics the sugar is materially increased as is also the return per acre—two factors which would well have been considered in connection with Pineapple farms for returned soldiers, particularly as sugar suitable for canning would have been available at northern mills.

Propagating Methods.

Pines are propagated by suckers, butts, tops, and what are known as gill sprouts or buttons.

Usually the method adopted is planting double rows, the young plants being placed about 12 inches apart, and 24 inches separating the double rows with an interspace between rows of 8 to 10 ft.

Planting should be effected during the last quarter of the year. Suckers mostly produce fruit during the first year—other types of plants during the second.

In the tropics the Pineapple is easily induced to seed, and the possibilities of improvement warrant attention which is not bestowed—possibly because seedlings require handling with care in the early stages, and are three or four years before fruiting.

Though the general quality of our fruit is good, there is room for improvement in existing varieties by selection.

It is well-known and acted upon that a plant producing misshapen or contorted fruit, referred to as cripples, will perpetuate the malformation in its suckers, etc., but the fact of the most shapely fruit being similarly perpetuated is very seldom taken into account. Uniformity in shape, which should be as nearly cylindrical as possible, and of even size is most desirable.

With good drainage and cultivation the Pineapple is comparatively free from pests and diseases. Mealy bug is frequently present in parts not well exposed, and in some districts The larvae of a cockchafer has done much damage in Redland Bay and Cleveland district by completely destroying the roots.

A trouble variably known as wilt or Pineapple disease, is present in varying quantity in most districts, but more particularly where cultivation is not efficient, or soil conditions unfavourable.

The presence of nematodes may also exercise influence, as despite contradictions, they have been located in the roots in plants of sickly appearance.

The Pineapple responds generously to fertilising, particularly with organic manures, and the maintenance of humus supply in the soil.

The disposal of midseason crops, both summer and winter, are a matter of some concern, particularly as the canning prospects are not particularly brilliant.

Dehydration has been successfully demonstrated by the plant at Nambour, under Mr. Morton's supervision. The quality of the product is much superior to general expectations. Several other varieties of fruit, including Bananas, were treated at the dehydrator, and resulted in really first-class products.

Some Interesting Facts about Bananas.

A WORLD-WIDE REVIEW.

SCIENTIFIC AND PRACTICAL INFORMATION.

By T. J. HARRIS

In view of the cultural difficulties confronting the Australian Banana industry, the article herewith, reviewing the culture of Bananas from a scientific and practical standpoint will be appreciated.

The history of the Banana is traced, also its introduction in the various countries of the world.

An attempt at cross-pollination was made, but just as the seeds were developing a cyclone destroyed the plants.

This article is written by an experienced man, Mr. T. J. Harris, and is reproduced from "The Florida Grower."

IN ORDER TO ADDRESS ourselves intelligently to a discussion of the practical work of planting, cultivating and marketing of Bananas, it will be necessary to examine briefly the general structure of the plant, its botanical relationships, and geographical distribution in the various parts of the earth.

The family to which the Banana belongs is known as Scitamineae and is widely distributed throughout the tropics and is placed in the division of flowering plants referred to as Monocotyledons, that is, the seedling has only one seed leaf or cotyledon in which the plant food is stored by the parent plant for the sustenance of the young one while establishing itself in the ground.

The leaves have parallel veins, the parts of the flowers are in whorls of three, there is no tap root but many fibrous roots reaching out in all directions, while no heartwood is formed but a number of vascular bundles are distributed throughout the pith-like wood.

Other examples of monocotyledonous plants are palms, lilies, century plants, amaryllis, the grasses which include sugar cane, bamboo, corn wheat, etc.

The Banana family is characterised by the presence of a spicy aromatic principle, contained in the seeds of some species but is found mostly in the rhizomes or underground stems; and in a mild degree in the fruit of the edible bananas; this in turn varying according to the variety. The rhizomes of some of the species also contain farinacious materials and are used as food.

The following are familiar members of the Banana family: Canna edulis, used as food by the Seminole Indians; Maranta arundinaceae, the arrowroot of commerce; Zinziber officinalis, the ginger of commerce; Elettaria cardamomum, yields the spicy cardamom; tumeric is the ground rhizome of Curcuma longa and is the chief constituent of curry powder.

The relatives of the Banana planted in our gardens as ornamental plants include Canna indica, Ravenala madagascariensis, the so-called traveller's palm, Strelitzia reginae, the bird of paradise flower, and its larger but less beautiful sister, Strelitzia augusta, Alpina nutans, the "wild ginger," Heliconias, Marantas, Hedychiums, Costus, Thalias, etc.

Of all the widely diversified forms contained in Scitaminieae only three form a stem above the ground, namely, the traveller's palm, Strelitzia augusta, and the comparatively diminutive Costus. The others have underground stems or rhizomes which creep and spread more or less in the different species. What we see above ground is the enfolded leaf stalks so arranged as to raise the fruit from the ground.

* * *

THE BANANAS AND PLANTAINS are included under the genus Musa and are natives of the East, there being no evidence of their presence on the American continent prior to its discovery.

Of these the most important to commerce at present is Musa sapientum, sometimes known as the Jamaica Banana, the Martinique, the Gros Michelle, the African, and now, I believe, the Orinoco.

This is the one that fed Livingstone and later, Stanley, on their way through Darkest Africa.

It grows to a height of twenty-five to thirty feet and each stalk has a spread of foliage of about twenty-five feet diameter; the diameter of the stem at two feet from the ground is from fifteen to eighteen inches. A full size plant will consist of three to five fully grown stems each bearing a bunch of Bananas, four to eight half grown stems, and numerous young sprouts varying from four to five feet in height to those popping out of the ground on the outer rim of the clump.

In Jamaica the system of planting closely eight feet by eight feet was tried out, pruning off the suckers except one to replace the one fruited and cut down; this gave six hundred and eighty to the acre, but this resulted in weak plants and small bunches.

The best distance proved to be sixteen feet by sixteen feet (170 to the acre) and let the plant grow naturally without pruning.

The explanation is that all the stems with their foliage co-operate in the general welfare of the clump and that anything less than a normal plant or clump is weak and unprofitable. It is highly desirable, therefore, that a newly set plantation achieves its maximum rate of growth in as short a time as possible.

To this end the unit for planting should be not less than the base of a fruited stem complete with the new sprouts putting forth all around it, for while a certain amount of the products of growth and assimilation is deposited in the fruit a far greater proportion is stored in the

rhizomes under ground,

which serves as sustenance for the young stems until they are well started in the matter of roots and foliage, functioning in the same way as the tuber of the potato when planted and the cotyledons or thick seed-leaves of a bean.

Large stacks of these bulb-like rhizomes may be seen in Jamaica piled on the roadside waiting to be planted; they are very tenacious of life and will sometimes grow and mat together if left unplanted too long.

At first the rainy districts were the most generally planted to Bananas, but it was found that they do equally well on the dry arid plains where the water table stands at three or four feet from the surface. **Hot dry winds** blow over these plains and split up the leaves of the Bananas, but they function just the same.

It will be noted the outline of the Banana leaf is similar to that of the coconut palm. It would seem that the split up condition of the palm leaf is a comparatively recently acquired characteristic as the first leaves of all young palms are entire.

Since the gigantic Banana plant bears the same relation to the Canna of our gardens as the tiger does to the cat, the elephant to the pig, the bear to the racoon, the giraffe to the sheep, etc., so, while we dig a little place in the garden for the Canna we attach a subsoiler to the biggest plow we can get, for the Banana.

The Banana plant is a very voracious feeder and is a vast consumer of nitrogen especially. Every part of the plant is mere vegetation as no

seeds are produced, and the more vigorous it grows the bigger will be the bunch of fruit, the fruit developing, as in the case of the Orange and the Pineapple, whether the seeds are formed or not.

There are some soils in Jamaica so rich in humus that the plants have been producing twenty-hand bunches without fertilizer for many years; nine hands is considered a full bunch by many growers.

Accurate formula for manuring, however, must be determined by experimentation. It will be noted that the only part of the plant removed from the plantation is the bunch of fruit. The stem and leaves are cut up and left on the ground to form humus and serve as a mulch.

In the Jamaica plantations the first bunches to be cut in a new plantation are usually ready about nine months after planting and from then on there is a continuous supply for many years. Musa sapientum, the Jamaica Banana, is essentially a tropical plant.

It would be tedious to give more than a passing mention of one or two of the more notable species of Musa as it is proposed that Musa Cavendishi will be given the larger share of our attention—Musa ensete, the Abyssinian Banana, is also a gigantic affair as regards the plant, but it is almost an annual; very rarely does it send out a sucker; but this discrepancy is offset by the fruit being packed with seeds as large as marbles.

Musa textilis is a native of the Philippine Islands and yields a valuable fibre used in the manufacture of ropes and cordage and is known as Manilla hemp; the fruit is not edible.

The Cuban Red variety is really a native of India and is known there as the Ram Kela; it has a strong horsey flavor not liked by everybody but it keeps in good condition for an exceptionally long time after it is ripe; its bunches are never very large.

The various plantains, the Apple Banana or Silver Skin, and the "Lady Finger" are allowed a little more space all over the West Indies, but are not cultivated on a commercial scale.

* * *

WE COME NOW to discuss an important commercial variety, namely, Musa Cavandishi, known also as the "Dwarf Banana," "Canary," "Cavendish," and "Chinese Banana."

It is the most northern of all the Bananas, and is a native of China. It is really a sub-tropical species and is accustomed to being frozen down occasionally, but it seems to come up again cheerfully and fruits in the same year. It doesn't thrive on the low lands in Jamaica, but it grows luxuriantly in the mountains at an elevation of five thousand feet where the climate is similar to that of Florida. It also does well in Bermuda in a latitude several degrees north of this state, in the Canary Islands, the Southern Pacific Islands, some parts of Australia, and in the northern part of New Zealand.

The Cavendish does not attain a greater height than six feet and the spread of foliage of each stalk is not more than seven feet and is often less; for this reason they can be planted at a distance apart of six by seven feet which gives one thousand and twenty-seven to the acre.

When a rhizome is planted in February (August in Australia) it will at once begin to send out three to five suckers, each of which should grow up and bear, a bunch in September or October (March/April in Australia) of the same year and succeeding stems will keep up a continuous supply. Bunches weighing 120 lbs. have been grown in Florida.

There are hundreds of square miles of cleared land in Florida suitable for the cultivation of the Cavendish Banana at present lying idle, but the difficulty is that of procuring sufficient plants to set out large areas.

If it were possible to secure uniform procedure in all the present plantations the most important thing to do is to refrain from the sale of suckers for about one year or at least ten months.

YOUNG BANANA PLANT.

If allowed to remain on the plants they will grow up and bear a bunch and become units for planting in just a few months. If removed from the parent rhizome and set the task of establishing themselves without the aid of rhizome they will require from one to one and a half years to produce one small bunch and the plant itself be not more than one weak unit at the end of that time.

Better to let them grow up into bulbs that will produce from three to five bunches and incidentally more bulbs for extending the plantation.

Given correct planting and good cultivation one acre could become four the next year, sixteen the next, sixty-four the next, etc., leaving one rhizome in the ground to do the same in the second year as the original did in the first.

It is not necessary to take any care with the roots when lifting the rhizomes for transplanting—the new growths forming the new root system and the slight disturbance of the soil is rather welcomed by the one that is left.

This method may be varied by removing alternate rows, leaving the clumps seven by twelve but with two or three bulbs left in each clump; the middles could then be plowed up and heavily fertilized in readiness for renewed plantings as the rhizomes have a tendency after a few years to gradually come to the surface, causing the stem to fall over from the weight of the bunch.

The plant does not, of course, increase in as regular a manner as these notes and figures seem to indicate, but these, nevertheless, stand for conservative averages. For instance, as many as eight stems and bunches have been produced in one year by one newly planted rhizome! while successional growths add their quota to the expansion of the plantation. This will become more evident when the present plants get up to normal and recover from the weakening effects of successive sucker planting.

In some winters frost will undoubtedly injure the foliage and check development of such bunches as are then forming, but close planting over large areas will tend to mitigate this to a certain extent; many districts get through the winter with no frost at all.

In the West Indies the Bananas are occasionally all blown down by terrific hurricanes that originate south-east of there; but the new growth soon begins to bear.

The Cavendish Banana will withstand flooding for a greater length of time than any other cultivated plant (with the exception of rice, which is grown in water) and yet it may be seen growing luxuriantly in the limestone hills in the West Indies five thousand feet above sea level.

Compared with other plants which, in serving mankind, have displaced large areas of natural forest, the Banana is remarkably free from insect pests and parasitical diseases.

A small beetle has been found burrowing into the rhizome in Florida, but has received attention from entomologists; not, however, in Cavendish. In the West Indies and Central America a close watch has been kept for sporadic outbreaks of the Panama disease which, however, has not been observed in Florida.

IN PACKING BANANAS for transportation from the Canary Islands to Europe, much care is bestowed.

The bunch is first of all wrapped in cotton batting, then in paper, and is then laid in a cradle-like crate lined with dry Banana leaves. These crates are made by a firm in Nova Scotia and cost about 6d. each; about 9d. covers the packing.

Banana Seed.

The only instance on record of seeds having been produced was when in the experiment station in Jamaica we endeavoured to produce a cross between the long keeping red variety and the Gros Michelle, the common yellow one.

Twenty-five plants of each were set out in a dry piece of land where the good black soil thinned out to gravel and where surface irrigation was available.

They were timed to put out bunches during the hottest and dryest months, June, July and August, and were rushed up rapidly by frequent watering until the first bunches put forth.

At this stage they were suddenly allowed to dry out, for it is well known that conditions which favor vegetation are opposed to those which induce reproduction. We had to wait until the first bunch of each kind had expanded all its pistilate flowers, and some staminate flowers had been produced (in the tassel-like appendage below the bunch) before pollen could be secured.

This was microscopically examined and found complete after germinating some of the grains on slides in a weak solution of sugar in the laboratory.

Cross-pollination was then proceeded with and was done during the hottest part of the day. Everything went well until on the eleventh of August a hundred and fifty mile hurricane hit Jamaica and our plants were all blown down.

Examination of the bunches the next morning disclosed from one to three large seeds in the flower end of the fruits, of a dark-brown color and bluntly conical in shape. They were about three-eighths of an inch in diameter.

The fruits were not more than a third developed and on opening some of the seeds the embryo or young plant was found to be fully formed but the cotyledon contained a thin, transparent fluid instead of the hard concentrated plant food such as may be found in a Canna seed. None of the seeds germinated, but there is every reason to believe that six more weeks growth would have yielded material for some very interesting hybrids, some perhaps, with characteristics that have lain suppressed for millions of years.

In conclusion we have a reference to the effects on the rainfall, and its distribution, by extensive Banana plantings. In Jamaica, a drought usually follows a levelling of the Banana plants by a hurricane, seeming to indicate that there is a close connection between the frequent rains and the undisturbed plantations.

Answers to Queries.

DOES BORDEAUX RUSSET APPLES?

Experiences in New South Wales.

Mr. W. J. Allen, Fruit Expert and Irrigationist to the N.S.W. Government, writes:—

"With reference to enquiry by 'Barossa' as to whether Bordeaux Russets Apples and the reply by Mr. George Quinn, which appeared in the July issue of the 'Fruit World,' I desire to inform you that, in experiments carried out at the Glen Innes Experiment Farm, Bordeaux did russet Apples severely when applied at the pinking stage, and although only the small embryo Apple is exposed at that period the russetted area seemed to spread out into a large area as the fruit grew. The trees only received this one application of Bordeaux mixture, and there were several plots of both sprayed and unsprayed trees which placed the result beyond any chance of being a coincidence. The experiment was carried out on London Pippin Apples.

"Later experiments showed that russetting did not occur when Bordeaux Mixture was applied at the spur burst period, that is, when the spurs are partially open, and the tips of the sepals of the calyx of the blossom buds are exposed. In these later experiments russetting occurred in cases where odd spurs were more advanced and the clusters of blossom buds were more exposed when the spray was applied.

"Experiments have also shown that russetting is only slight when Bordeaux Mixture is applied about five weeks after the fruit has set, and still slighter eight or nine weeks after the fruit has set."

Are Sultanas Seedless.—A correspondent asks if there are any seeds in Sultana Grapes, and if so, how they are removed?

Answer.—The Sultana (or, more correctly, the Sultanina) is one of the seedless variety of Grapes, of which there are several, mainly natives of Asia Minor. The flowers of these Grapes are fertilized in the usual way, but the embryo seeds fail to develop, and cannot after a while be distinguished from the pulp of the berry, so that when ripe these Grapes have no seeds. Occasionally one finds, in a bunch of seedless Grapes, an odd large berry in which the seeds have developed—these are not uncommon in the Zante Currant. They are, in fact, a source of annoyance, as they take much longer to dry than the smaller seedless berries. In the Sultana they are very seldom met with.

Australian Grapes in New Zealand

Fruit Importer states that 1,000 Barrels of Grapes could be sent Weekly from Australia to New Zealand.

Importance of Barrels Emphasized.

Mr. E. Oswald Reilly, Central Produce Mart, Dunedin, writes (Sept. 13, 1923):—

On visiting Mildura I was much impressed with the great possibilities for development there.

At the moment (13/9/23) New Zealand is receiving about

1,000 barrels of Grapes

from America each mail steamer, and these barrels are put up in a most attractive manner. The barrels are 8in. high, 14in. wide, and each barrel holds 30 lbs. of Grapes. The barrels are air-tight. They are made of 2 x ⅛in. oregon pine. There are four ⅛in. hoops, two at each end, to keep the staves together, and to open the barrel one has just to remove the two end hoops and take out the end, which comes away in two separate pieces. The gross weight of the package, with the Grapes included, is 44 lbs. in all, thus the weight of the barrel and the wood-dust is 14 lbs.

The Grapes coming forward at the moment are "Malaga," and right throughout the season they have been arriving here in perfect condition, and our consignments have realised 34/-, 35/- and 36/- per barrel, practically costing the retailers here about 1/5 per lb. wholesale.

Now, the Americans are noted for the class of packages they use. Australia has got the Grapes, and we are confident that if your people will use this class of package (barrels instead of cases, and pack with wood-dust), Wellington, Christchurch, Dunedin and Invercargill could handle at least 1,000 barrels of these Grapes per week, so that with a fortnightly steamer they would be able to ship about two thousand barrels of Grapes, and though we cannot hope that your Grapes would realise 34/- to 36/- per barrel, we honestly believe they would realise at least in the vicinity of 30/-, and find a ready sale at this money, though if larger quantities came forward correspondingly lower prices would have to be accepted.

We most respectfully suggest to your exporters that they fully consider the question of **shipping their fresh Grapes in these air-tight barrels.**

We may mention that previously the Grapes that came from America came forward in square boxes, and, though they were packed with cork-dust, we found there was a fair amount of wastage in each package; this is explained by the fact that the barrels being absolutely air-tight and being all packed end up, the Grapes do not become bruised or shaken about in any manner at all, and further, standing as they do on their ends, the centre of the barrels where the Grapes are packed, are quite free from all vibrations in transit.

We earnestly recommend shippers there to devote the whole of their attention to the perfecting of their marketable packages.

It is a well-known fact that the attractive manner in which the Americans put up the goods which they have to sell is practically half the battle.

We would respectfully suggest that your growers get in touch with some case or barrel manufacturers, and see if it is possible to get such a barrel put up for the conveyance of your perishable fruits, particularly Grapes.

Take time by the fore-lock! There is one time to initiate any improvement, and that is NOW.

Agriculture in England.

Interesting Statistics.

Orchards, 232,000 Acres.

The preliminary tabulation of the Agricultural Returns, collected on the 4th June, 1923, in respect of agricultural holdings above one acre in England and Wales, shows that the total area under crops and grass is 25,941,000 acres, comprising 11,182,000 acres of arable land and 14,759,000 acres of permanent grass (states the "Horticultural Trade Journal," Eng.). The total area of crops and grass shows a reduction of 85,000 acres on last year's figures, but the area returned as rough grazings is 78,000 acres more than in 1922, so that the net reduction in the area of land coming within the scope of these returns is thus 7,000 acres. All classes of live stock except horses show an increase.

As compared with 1922, the arable area has fallen by 129,000 acres, while permanent grass shows an increase of 44,000 acres. The reduction in the arable area is mainly accounted for by the corn, pulse and potato crop.

Cereals.—The total area under the three chief cereals, including mixed corn, is 5,162,000 acres, or 458,000 acres less than in 1922. All three cereals have declined, wheat by 226,000 acres, barley by 35,000 acres, and oats by 190,000 acres. The area of wheat is the lowest since 1913, but is about the average of the ten years 1905-1914. The barley area is larger than in 1915, but, with the exception of that year, is the lowest on record. The area under oats is practically the same as in 1913, and rather larger than in 1914.

Beans and Peas.—The area of Beans at 234,000 acres, and of Peas at 141,000 acres, show substantial reductions of 50,000 acres and 32,000 acres respectively on last year's figures. The area of Beans is the smallest during the last twenty years, excepting that of 1917, while apart from the war period the area of Peas is the lowest on record.

Potatoes.—The total area of Potatoes, 467,000 acres, is 94,000 acres less than in 1922. There has been a reduction in all parts of the country, consequently on the poor financial results of last year's prolific crop, but this year's area is still larger than in any year before the war.

Roots.—The area returned as under Turnips and Swedes is 861,000 acres, this being 40,000 acres more than in 1922. The area of Mangolds, however, at 403,000 acres shows a decline of 20,000 acres, but with the exception of 1922 is the largest since 1915.

Fruit.—The area of orchards is returned at 232,000 acres, or 12,000 acres more than in 1920. Small fruit, however, shows a decline, this year's area of 63,700 acres being 11,000 acres less than in 1922, though it is larger than in the two years 1919 and 1920. Small fruit is grown largely in orchards, and although growers are asked to show figures for small fruit separately in the return, it is possible that this may not have been done very exactly in all cases.

Other Crops.—The area of other crops has, on the whole, declined, this being mainly due to a large reduction of nearly 50,000 acres in the case of Vetches or Tares. Mustard and Lucerne both show relatively large increases, and there is a notable increase in the area of sugar beet, which is twice that of last year. Hops show a decline of 1,600 acres.

Clover and Rotation Grasses.—The area of Clover and rotation grasses was greatly reduced last year owing to the failure of the 1921 sowings. That loss has now been recovered, and this year's area of 2,601,000 acres is the largest since 1911. The area of these crops which is reserved for hay is 287,000 acres greater than in 1922, which more than makes up the small decline of 58,000 acres in the area of permanent grass for mowing.

Blueberry Commercially.—After experiments extending over 16 years, the United States Department of Agriculture has established the culture of the Blueberry as a commercial industry and has bred varieties with berries more than three-fourths of an inch in diameter. The most outstanding cultural characteristic of the Blueberry is its requirement of an acid soil. It does not thrive in ordinary rich garden soil that has a neutral alkaline reaction.—"American Nurseryman."

A lively public spirit has built up many a town. The same spirit applied right in your school district will make it a better place in which to live, farm or do business.

Fruitgrowing Under Irrigation

CROP PROSPECTS. NOTES ON FRUIT DRYING

(By Our Special Correspondent.)

ALONG THE MURRAY VALLEY continued heavy winds have done much damage in the young plantations of fruit trees and vines. Many shoots have been broken off from positions in which the foundation of the main arms should be built.

In young orchards and vineyards constant care is necessary to properly train up the young plants.

The vines should be gone over, if possible, two or three times during the spring and early summer, and the shoots needed for building in the stem and arms should be securely tied, to prevent the wind blowing them off.

Summer pruning should be gone on with in dense trees, removing the strong upright growing shoots arising in the centres of the trees, or reducing them to within 6 inches of their base.

The shoots in the centres of the trees may be thinned out so as to allow light and air to penetrate into the trees, thus aiding in ripening the retained fruiting wood.

Should very dense trees be left unthinned, especially the **Peach**, much of the desirable fruiting wood on the inside of the branches will fail to mature owing to the absence of light.

Frequently in these columns the treatment of the strong wood shoots arising in the centres of Apricot trees has been described.

These should be treated in the summer. Now is the time to reduce them back to within six or nine inches of their base. In all probability, fruit shoots will arise from the retained stubs, which can be used to carry fruit the following summer.

Crop Prospects.

The crop of tree fruits can be safely estimated in the Murray Valley now.

The **Apricot** crop will not reach two-thirds of that harvested last season. The crop on the whole is very patchy, some trees bearing fair crops, an occasional one having a heavy showing of fruit, while many have but a scanty setting.

What the crop lacks in quantity will, to a small degree, be made up by the size and quality of the fruit. This season should produce Apricots that should produce a good sample of whole dried fruit.

The trees, owing to the light crop that is being carried, are making splendid growth, and should be in good order to carry good crops next season.

The **Peach crop**, on the whole, is very fair, and should prove equal, if not a little in advance, of last season.

The **Nectarine** crop is only fair to medium, some trees carrying but little fruit, and others a good quantity. The Nectarine has not proved to be a reliable cropper on the river, in the early years the trees seem to bear well, but as they age the crops carried are often unsatisfactory.

The **Prune yield**, on the whole, appears to be good through out Murray irrigation areas.

The **Pear** returns promise to be heavy, and the quality of the fruit good. Constant spraying with arsenate of lead is advocated to keep the fruit free from codlin moth.

Pay strict attention to the fruit to see that the Pears are well covered with the poison. The foliage may be well covered with spray, but the fruit may still be mothy, simply because the Pears were covered with leaves, and but little of the arsenate reached them, consequently the fruit was not protected from the grubs.

The **Oranges** flowered profusely, and from all appearances a heavy crop of fruit has set.

The **Mandarins**, too, appear to be carrying good crops.

Many of the citrus are not looking at their best at the present time, a late fall of leaves has taken place. This is probably due to the heavy tax upon the vitality of the trees during the flowering period, coupled with the unsettled weather conditions that have prevailed throughout the spring months to the present time.

The rise in temperatures with hot northerly winds, followed by rapid falls in temperature, accompanied by westerly gales, is liable to set up disorders in the trees.

The results of the unsettled weather has set up disorders, not only in the trees, but in many instances in the vines.

With the approach of normal summer conditions, the appearance of the trees should greatly improve; in fact, the trees are again bursting into new growth.

The **vines** throughout the whole of the Murray Valley, in the South Australian areas, have never shown a better flowering.

The **Sultana** and **Gordo** are bidding to carry very heavy crops, the same may be also said in reference to the **Malaga (or Waltham Cross)**.

The **Currant** vines, too, are looking well, and have a good promise of a heavy crop, the flower bunches are large, so with a good setting a heavy yield should follow.

The **Doradillo**, as usual, is again giving every indication of heavy returns.

* * *

NOTES ON DRYING.

WITH THE APPROACH of December, one begins to think of the drying season, the repairing of the drying plant should be put in hand to prevent any hitch when the season opens.

The wise fruit drier will see that he has sufficient sulphur, caustic soda and hessian on hand, as well as trays and sweat boxes.

The **Apricot** will be the first fruit to be dealt with, the first care is to see that the fruit is thoroughly ripe before it is picked. Unripe fruit does not produce the best sample, and we must put the best article it is possible to produce on the market to command and retain trade.

If the fruit is to be split place it with the cups uppermost on the trays and sulphur till the cups are practically full of syrup.

Don't over-sulphur, it spoils the fruit, the juice overflows on to the tray, and makes the removal of the dried product difficult.

Much of the whole dried fruit has, in the past, been put up in such a bad state that the public are not keen on taking it. Only the largest of the fruit should be dried whole, as the smaller fruit produces a sample that appears to be little else but skin and stone. The color fixing appears to be a great stumbling block to many growers.

If the following method is followed, good color will result:—

Place the fruit in ordinary dipping tins, and immerse it for a couple of seconds in a boiling lye, made by adding 1 lb. caustic soda to 30 gallons of water.

The fruit can then be placed on the drying trays, or, better still, passed through a clean water bath to wash off the superfluous lye before placing on the trays.

In placing the fruit on the tray, care should be exercised to see that the fruit is laid upon its side, as the best article is thus produced. Fruit dried standing upon its apex or base always dries in a misshapened mass, with the stone often protruding through the skin.

The fruit is passed into the sulphur house, and is subjected to the fumes for 8 to 10 hours, where the fruit is not dipped a much longer period of sulphuring is necessary.

From the sulphur box or house the fruit may be placed directly in the sun, as no blistering of the skin will result on the fruit that has passed through the caustic dip.

The fruit may be left exposed to the sun until nearly dried, and the final drying may be completed in the stack.

THE AUSTRALIAN CITRUS GROWER

FUMIGATION VERSUS SPRAYING AS A CONTROL FOR INSECT PESTS OF CITRUS.

by W. S. Arnold, Manager Soldier Settlement. Kurrajong, N.S.W.

SCALE INSECTS cause the citrus growers here grave concern, but the greatest curse is the Red Scale. It develops rapidly, saps the vitality out of the tree, and impairs the value of the fruit on our local market, and it causes the prohibition of fruit for export, and in every turn seems to nullify the efforts of the orchardist unless he determines to "wipe it out," knowing if he fails it will give him little chance of a decent living.

If we can wipe out Red Scale we can practically settle all other insect pests at the same time.

How are we to do it? Some say spray, some say fumigate. Each have their own advocates, and under certain conditions each method has its advantage. I have tried both, and for thoroughness of work the latter takes the palm.

But the equipment for fumigation, and the cost of operation is much more expensive than the spraying plant, and for this reason fumigation may not appeal to the small grower unless he co-operates with others. Results, I think, warrant it, as one fumigation may be as good as three or more sprayings.

Spraying may give good result for Red Scale, but

the sovereign remedy

is fumigation with hydrocyanic gas or prussic acid gas. Spraying may be easier and cheaper, but the experience in the district this year was that results were very inconsistent and variable, in some cases good, other instances poor, although in most cases great care was exercised in the operation.

Where fumigation is carried out faithfully and conditions right, the results are most reliable and consistent.

In one season in California nearly half-a-million sterling was spent in combating scale pests of citrus by fumigation, and quite recently, I believe, Professor Quayle, of the University of California, stated that their experience was in California, after 30 years' experimenting, fumigation was the only successful method of dealing with Scale.

About twelve years ago it was not an uncommon sight to see fumigation going on in the winter months in Kurrajong, but it has been dropped, largely because during the war time, cyanide was almost unprocurable at any price, and the cost of sheeting material and acid out of all proportion to warrant expenditure.

Now prices have regained more normal rates I quite expect to see fumigation carried out on a large scale again in the near future. The general opinion now is that if we want absolutely clean trees, cyaniding must take place, although plenty condemn the practice.

In South Australia the law compels citrus growers with scale infested trees to fumigate or spray whenever so directed by an inspector under the Vine, Fruit and Vegetable Protection Act (and it will soon be law in N.S.W.). Practically the whole of the commercial citrus growers, in their coastal area where Red Scale is troublesome, have their trees fumigated. The greater part is done by Government plant.

In a communication to me, dated 31st October, 1923, from George Quinn, Esq., Horticultural Instructor of South Australia, he states that their branch of Agriculture has operated a cyaniding plant continuously for over 11 years. They do not hire out tents, but have their own field staff, consisting of a foreman, who is paid £5/10/-, and assistants at £4/9/- per week.

He goes on to say that if they handle the whole of the trees in a group of orangeries, under favourable conditions, they will remain commercially clean for from second to fourth season, according to the isolation of the block, but they expect to refumigate every third season.

What Fumigation Costs.

Recently the whole of the expenditure of eleven years' operations were worked out. Their plant is worth £800. At times they have three gangs of men working. Their regular gang of five men operate seventeen sheets varying from 15 ft. x15 ft. to 45 ft. x 40 ft., and the costs for disinfecting vary from about 1/9 per small tree to 3/- for larger tree. The costs appear high, because they have to pay men when the weather is indifferent, sufficient to guarantee them a living wage.

In the fumigation of citrus trees potassium is mostly used, sometimes sodium, cyanide. This is treated with diluted sulphuric acid, and the gas liberated under a tent which covers the tree.

For orchard blocks of 1,000 trees, like our first planted ones, now three years old, I would estimate the cost at roughly 7d. per tree, based on the following data:—

1,000 trees—

1 oz. cyanide to tree, at 1/6 per lb. £4/14-

1 fluid oz. sulphuric acid, at 2½d. lb. £1/0/10

(1 fluid oz. about 1 lb. avoir.)

Most suitable tents of excellent quality calico to fit the bulk of trees on blocks, can be procured for £1/18/- each. Twelve of these would be required for economical working. Allowing heavy depreciation, 20 per cent. of £23/4/- £4/12/10

Cost of lowest labour could be estimated—1 man, two boys, doing 80 trees a night, 30/- £18/15/-

Total £29/2/8

Four sprayings are often required to get as good a kill as fumigation; which on some orchards would take per spraying:—

1,000 trees—

1 case Red Oil, at 30/-, 4 times at least £6

Complete plant—spray, motor, No. 2 hand power, £18 depreciation, 2½ per cent. per spray, 9/- x 4 .. £1/16/-

2 days' labour (1 man, 2 boys, 30/- day) x 4 .. .. £12

Total £19/16-

or per tree, 4¾d.

As the trees get bigger, the cost is proportionately less for fumigation and greater for spraying.

* * *

TO DEMONSTRATE WHETHER it warrants the extra expense to fumigate, I would suggest that four or five settlers club together and procure equipment for two gangs, and fumigate their orchards, and another group of settlers purchase a motor power spray pump for their holdings. I would prefer all fumigation done in one centre of four or five blocks if possible, spraying the same, to ensure comparative isolation and prevent unnecessary contagion from other blocks not under control.

For the benefit of the new man, the following information on fumigation may be useful and instructive. Fumigation was first considered owing to the ravages of scale insects. A lot of experiments with muriatic acid gas, carbonic acid gas, chloroform, chloride of lime and methylated alcohol, carbon bisulphide, nicotine, sulphuretted hydrogen, etc., were tried. All these gases, although so fatal to higher animal life when respired, failed to have the same deadly effect on scale insects, as hydro cyanic gas. Not only is the gas so exceedingly poisonous to scale insects, but it is so easy to generate. What is wanted is to find the exact dosage to give each tree to get the maximum kill of insects and the minimum injury to the tree.

Different scale insects vary in their susceptibility to the gas. After many years experimenting in N.S.W., South Australia, South Africa, and California, tables have been compiled showing dosage required. Mr. Allen, the New South Wales Government Fruit Expert, has a schedule with instructions how to handle the whole business. If the operator follows faithfully the conditions laid down in this pamphlet, I can say, from my own experience, that his results will be satisfactory.

Tents or sheets are required for the operation. Some prefer the former, but probably the most useful is the sheet. Walder & Co., Sydney, make splendid tents to order to suit class of tree being treated. The cloth wants to combine the minimum of weight with the maximum of strength and pliability. If sheets are required, the same firm quote excellent material 80in. wide at 3/6 per yard less 10 per cent. cash. This would mean four sheets, say 26 ft. x 24 ft., £5/1/-.

The weight per sq. yard is about 14 ozs., and when held up to the sun no direct light is apparent. The cloth wants to be fairly air tight, so as to confine gas better.

Some have tried greasing cloth, painting with boiled linseed oil, etc., but none are to be recommended, as they collect dirt and become heavy and unwieldy, and are not strengthened by application.

I feel sure an immersion into a strong wattle bark solution would be beneficial in preserving the fabric, as I noticed the tents have a great tendency to mildew, even although every care may be taken to keep them aired and dry.

Time to Fumigate.

For a general "clean up" of insect pests, possibly January, February and March are the best months, fumigation being done at night. Most of the scale at this time, "Wax scale" included, are young and tender, as they have just hatched, and are least protected. Should a few be by any means missed, they would have time to breed and spread over fruit before winter.

Another reason, in some cases it has been found fumigation done during the early Spring injures more or less the young delicate fruit.

Again, if by any means a few scale should be missed they breed up again before fruit is fit for market.

In January, February, and March the young fruit is growing, and the dead scale comes off as the fruit expands, and the fruit is beautifully clean for market. If not fumigated the red scale is hard to remove even with a brush.

One of the most important factors to be always borne in mind is **"Trees must be in good health,"** although I know of instances where a tree nearly dead with scale, with apparently no hope of recovery, was treated. The tree was absolutely denuded a few days after the operation, but it completely recovered and became one of the best in the orchard.

Hot weather fumigation in day time is most risky. A charge that at night time would not remove a leaf if done in heat of day removes leaves and perhaps burns the tender twigs, so it is not wise to run the risk of day fumigation in hot months.

When fumigating some large Orange trees in the month of February we had occasion to extend the operation till about 7 a.m., when the sun was up, and while on the same job commenced another evening about 5 p.m. The result

taught us a lesson,

insomuch that the leaves came off the Eastern side of the tree in former instance, and off the Western side in the latter case. The gas being drawn to the sunlight evidently caused an undue dose of gas on the sunny side.

It is also known that healthy trees in soil wet from a good rainfall or irrigation suffer more than healthy trees in drier soils.

Again, some have experienced trouble from heavy dews or slight rain during operation, but the evil is more in making the tents heavy and cumbersome with collected mud than damage to leaf or fruit. However, it is wise if both sheets and trees are thoroughly wet to cease work for that night. Further, strong breezes often have the same effect as sunshine, by driving the gas to one side of tent; and where fumes are densest the leaves may be shed: the gas also escapes quicker when the wind is blowing.

Strong sunshine makes day fumigation dangerous, yet it has been proved in this district, and is quite a common practice in South Australia and other countries, that Red Scale can be successfully combated during the daylight in winter seasons, when insects are dormant, the reason being neither light or heat are too strong, and back infection almost impossible. Perfectly dull dry days in winter or night fumigation in January, February and March are preferred for operation.

* * *

Materials to Use.

AT ONE TIME Cyanide, Potassium Cyanide was exclusively used for the generation of Hydrocyanic or Prussic Acid Gas, but now Sodium Cyanide is often used, being as cheap, and producing just as efficient fumes as the former. Cyanide should be kept dry in storage, and exposed as little as possible to the air, since moisture and air soon decompose it, converting them into carbonates, substances of no value at all for fumigation. Commercial Potassium, Cyanide must be up to 98 per cent. standard, as quoted in schedule, but if only slightly deteriorated, a correspondingly larger quantity of the salt must be used.

To ensure success, be sure cyanide is up to full strength when operating. Cyanide must not be powdered, for if used, the reaction is too violent and endangers operator. Lumps about the size of pullets' eggs are best. Compressed cakes of cyanide, weighing 1 oz. can be obtained on some markets, and have proved most convenient. Under proper conditions, the evolution of gas will have been completed in about five minutes.

Potassium of Cyanide is now procurable at 1/6 per lb.; before the war we got it for 11d.

Sulphuric Acid.—This also must be up to the standard of purity at least 93 per cent. Specific gravity 18. This can now be purchased at 2½d. per lb., it was as low as 1½d. when we bought. It is obtainable in large earthenware jars or carboys. A refund on these can be obtained on return to the chemist.

Generators and Covers.—For small trees, China pudding basins are quite useful and cheap. The rounded bottom inside, is in their favour, as it tends to keep the cyanide floating in the acid during the reaction, and thus rendering its complete decomposition.

In using a wide flat bottomed dish for small trees the cyanide may not be covered by liquid required to dissolve it. Hence sufficient gas may not be generated in time. The approved type of generator is flat bottomed outside, inside bottom cap shaped, with depression in middle, as it assures a more thorough decomposition of the quantities of cyanide used in the charges.

Lids or Covers raised over generators help in two ways, by preventing

spattering of acid on tent, and they tend to spread the gas outward, instead of straight through centre of tree.

Graduated Glass.—This is required to measure fluid ozs. of sulphuric acid and water.

Small Scales, weighing ¼ oz. to 1 lb. is needed for weighing cyanide.

The Schedule of ingredients required also wants to be printed in large figures on a convenient board.

Measuring Stick, just exceeding height and diameter of largest tree, tents, poles, etc., also want to be handy.

If working at night, use two good lanterns.

How to Measure to Charge.—The fumigating schedules of our Department of Agriculture are for height, and diameter, not for circumference, and over surface measurement, as in the other States. A batten with feet marked distinctly on it will give height of tree, and the widest diameter is also taken. Reference to table will then show quantities of cyanide, sulphuric acid and water required.

Roughly speaking, for 100 cubic feet space, 1 oz. cyanide 98 per cent. quality, 1 fluid oz. sulphuric acid, 1.8 specific gravity, and 3 fl. oz. pure water are required to give good results.

* * *

Fumigation Procedure.

ONE MAN gets dimensions of tree, weighs and measures material ahead. If trees are small, either tent or sheet can easily be swung over by hand. If trees are too large to sail sheet or tent over, two poles are used two feet longer than height of tree, forked at light end, and pointed at heavy end (wattle saplings serve first rate).

The sheet, which has a loop in each corner, is laid down. The sharpened ends of the pole are placed on ground at sides opposite the trunk, and equal distance from centre, and dropped into hole about 9in. deep (at circumference of tree) made by mattock to prevent them kicking. The loops are placed and fastened to the fork, and a man at each pole begins to raise uniformly the forked ends, with sheet, till they get poles upright. Then they are lowered at same time till sheet is over tree.

If tent is used, I found by hemming a rope into one-third of circumference of tent, and leaving a loop out at each end to fit over forks, made it easy to lift over tree. When thus covered the edge of the tent should be kicked in, so that it hangs evenly around, and does not enclose unnecessary space.

The cover being adjusted over the tree, soil is heaped on to the edge of tent with chipping hoe, nearly all round. Pour measured water into generator, then slowly add the acid. The addition of acid to water is very important. In diluting the acid, it raises the temperature, thus acceleraing the evolution of gas.

Lift the edge of tent and place the bowl close to the tree stem, drop in small lumps of the weighed cyanide gently into bowl, which should be always big enough to allow expansion; cover with lid, which

spreads the gas

in a horizontal direction, quickly retreat, close tent and place dirt on edge. Leave 45 minutes for sure results.

Every care must be observed in keeping, handling and using the chemicals, as cyanide is most deadly to human life, and the acid corrosively destructive to flesh, clothing and tents.

If cyanide should be dissolved in water before the acid is added, the reaction is so violent as to be almost an explosion, but if instructions are followed, the whole operation is a comparatively safe one.

One would suppose that an Orange tree, having a dense foliage, would fill up the space within the tent, and require less gas to be effective, but the cold surface of the leaves condenses the gas and operator finds that a heavier charge is needed for such a tree and for a scant foliaged tree less gas is required to be effective.

Some think that trees should lose some of their leaves to be effective, but it is not necessary, scale insects can be killed without loss of twigs or leaves. As the tree recovers quickly, even when seriously scorched, a slight burning is of no great detriment to tree.

Effects of Fumigation

on different scale and other insects.—Dead olive scale and eggs can be detected in less than two weeks. Red scale begins to fall off in five or six weeks. Young wax scale discolors in two or three weeks. Fumagine or Sooty Fungus, having nothing to live on, washes off in first shower.

Dicky Rice, borer beetle, spiny bug, crusader beetle, and lady birds fall to ground when tent and sheet are thrown over the tree, and often escape with just a temporary stupifying, as gas, being lighter, floats upwards, and the insects partly burrow into the ground and many recover after the tent has been removed.

Not so with scale insects. Their beak or sucking mouths are buried in the tissue of the bark, which becomes charged with these poisonous fumes, and they are killed by imbibing as well as inhaling. This is the reason that fumigation is so fatal to armoured scale, and often has little effect on dicky rice and weevils.

Experiments show that destruction is less thorough when any scale covering has formed a thick coat like adult wax scale as fumes cannot penetrate through it.

Where failures occur, same may be due to underestimating size of tree and fumigating at wrong time, neglect to see if tents are free of holes. Carelessness in weighing and measuring an insufficient quantity of acid or water, and too small a generator.

Systems in operation amongst citrus growers vary in different parts for insect control by fumigation.

In the Murrumbidgee area a private contractor, Mr. Russell, is doing most of the work.

In South Australia, the Government have their own field staff and plant doing the work and charging the grower in proportion to material used, etc. They will not hire out plant.

In South Africa, local associations, in which growers co-operate for mutual benefit and protection, often own fumigating outfits, and treat the infested orchards belonging to their members (under the supervision of the Government Inspector).

The Horticultural Commission in San Bernardo own several hundred tents, and fumigate immense areas.

In a citrus district like this, could we not get quite a number of Co-operative Fumigating Clubs of five growers or more, through the Fruitgrowers' Association or Agricultural Bureau, or later on, the Packing Shed Company? These could get plant, members pay a fixed tariff, cost of chemicals and services of manager to do their fumigating.

Recently a fumigating machine has been invented which quickly generates the gas in a large metal drum by mixing water, cyanide and acid. The gas is discharged directly into the tents through a hose. The use of this machine makes generators unnecessary, and prevents acid holes of tents.

Calcium cyanide is the latest in fumigation. Prof. Quayle, of California, found that hydrocyanic acid gas could be produced with calcium cyanide in the same way as acetylene gas was formed by calcium carbide and moisture.

In fumigation with the fine calcium cyanide, the powder is weighed according to size of tree, placed in the hopper of a blower.

There is no necessity to place earth on skirt of tent, no acid to burn clothes and hand or holes into the tents, no generator needed and no water.

Prof. Quayle spent four months on irrigation area experimenting with this material, and found it much cheaper and quite as effective as the pot method, providing weather is dry, but found it rather risky in damp weather, especially hurting the Lemon.

I am trying to arrange for 1 acre of trees to be done with calcium cyanide on the settlement when further shipments come to hand from America, there being no stock available in N.S.W. at present.

Careful experiments will have to be conducted to see if it can be used with the same good results in this district as on the irrigation area before we take to it in a large way.

There seems to be a risk of big foliage damage in our semi-coastal humid district.

In conclusion, I might say fumigation has no effect on fungus pests, so that fumigation is not a cure-all.

AUSTRALIAN DRIED FRUITS.

Report of the Delegation to Great Britain.

With a Preferential Tariff the Prospects for Export Trade are Bright.

(By W. B. Chaffey.)

A DELEGATION, consisting of Messrs. W. B. Chaffey, F. L. McDougall, and C. E. D. Mears recently visited Great Britain under Australian Government auspices, to advance the cause of British tariff preference to Empire fruit products, and to obtain information as to the best means of securing an expansion of trade in Australian dried and canned fruit in overseas markets.

In his report to the Annual Conference of the Australian Dried Fruits Association, the President, Mr. W. B. Chaffey, stated:—

The objects of the mission were two-fold—to ascertain the views of British merchants on the quality of Australian dried and canned fruits, and to seek tariff preference therefor to reduce the heavy handicap of distance from that market and the higher costs of production borne by Australian growers in comparison with competitors of other countries in which exceptionally low rates of pay for employees prevail.

It was eminently satisfactory to find that Australian dried fruits were admitted to be of exceptionally good quality in comparison with those from countries where the industry has been carried on for generations, and that though there were some complaints of our grading, the objections raised were mainly due to the stencilling of grade marks on the boxes, and the desire for a more detailed classification to enable merchants to meet the varied requirements of trade.

The British Government has intimated its intention to grant the request for the preference we were deputed to advocate.

Viscount Long (Chairman) and Professor Hewins (Secretary) of the Empire Development Union, rendered valuable assistance.

The preference sought was in the form of free admission of Empire dried fruits and the imposition of a duty of 10/6 per cwt, upon all foreign dried fruits. That is the rate of the present duty upon Apricots, Prunes, Sultanas and Raisins, but the duty upon Currants is only 2/- per cwt., under the provisions of a commercial treaty concluded with Greece in 1890, while dried Apples, Pears, Peaches and Nectarines are now admitted free.

When the present British Government came into power Mr. Bonar Law, then Prime Minister, stated he would not impose any new duties, but there is certainly a disposition on the part of the Government to make the desired preference effective, and the recent news-cable that dried Apples, Pears, Nectarines and Peaches are to be dutiable supports the expectation that all fruits listed by the Association will receive equal preferential treatment at an early date.

There is probably an opening for a limited quantity of our dried fruits in Scandinavia.

The securing of tariff preference in overseas markets is exceptionally important at the present time, because of the changed conditions of the dried fruits industry, due to the great extension of planted areas and the settlement of thousands of returned soldiers upon blocks of land devoted to the production of fruit.

The Australian Dried Fruits Association was originally formed to control the packing and marketing of dried fruits in Australia. There was at that time no export overseas, and so long as the surplus tonnage continued to be small foreign markets were not of vital importance. But the export proportion of the pack is increasing year by year, and with a production **equal to four or five times the total of the Commonwealth requirements,** the revision of marketing methods has become imperative.

The delegation—whose experience was borne out by that of Mr. A. S. Hopkins, General Manager of the Mildura Co-operative Fruit Co. Ltd., who was in London at the same time—found that we have not effective control of the fruit sent to Great Britain, that the brokers who sell the fruit compete with each other, and so weaken the market.

As the first step to the re-organisation of marketing arrangements, it is necessary to secure control of the exported fruit, so that it can be handled under the direction of an officer of the Association. I do not think it is politic at present to endeavour to sell outside the London Dried Fruits Distributors' Association, but with all the fruit placed under one control we shall be able to employ for the whole Association a broker not interested in selling fruit from other countries, but confining all his attention to the Association's dried fruits.

The Empire Exhibition, to be held in London next year, will afford the best opportunity we are ever likely to have of advertising our fruits, and I recommend that Mr. F. L. McDougall become the representative of the Association at the Exhibition

In conclusion, I take this opportunity to express my cordial appreciation of the great work which Mr. McDougall has done in London, and my conviction that the success of the mission is in great measure due to his untiring efforts. In like manner I have pleasure in acknowledging the great value of the assistance ungrudgingly rendered by Mr. A. S. Hopkins, who was in Britain in the interests of the Mildura Co-operative Fruit Co. Ltd., but gave us the benefit of his business experience, and devoted much time and thought to the advancement of the cause of the mission. The extent of that benefit, and its continuance, will in great measure depend upon unity among growers, and it is therefore imperative that every possible effort be put forth to remove causes of dissension, and to strengthen the Association, so that its work on behalf of the growers may be continued with increasing success.

W. B. CHAFFEY,
President A.D.F.A.

Mildura, October 18th, 1923.

AUSTRALIAN DRIED FRUITS ASSOCIATION.

The Re-organised Administration.

In accordance with the resolutions of the recent Conference of the Australian Dried Fruits Association, a change has been made in the general administration.

Previously the Annual Conference elected a Prices Board, consisting of four members. This Prices Board controlled the general administration and policy of the Association between Conferences.

The new method is the appointment

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You are thinking Fruit Graders and talking Fruit Graders. It is time now to BUY!

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YOU WANT THE BEST!

The "Lightning" Fruit Grader

Is the Machine you will decide to buy.

The Strongest, Simplest, Most Efficient

Machine on the market. It gives complete and lasting satisfaction.

Does not Bruise the Fruit

We have the Goods!

At the recent Bendigo (Vic.) Show the LIGHTNING FRUIT GRADER received a "Very Highly Commended" Certificate against all comers. The judges stated that had there been entries for graders the Lightning would have won first prize. No other grader received a certificate.

Made in 6 Models up to 10 grades, power or hand. Capacity—From 500 to 1,000 cases per day.

Grades PEACHES, APPLES, APRICOTS, PEARS and all Fruits accurately—with a touch more delicate than is possible with hand grading—and with all the speed implied by its name "Lightning."

FRUIT WELL GRADED IS HALF SOLD.

WE WILL BE PLEASED TO POST YOU A CATALOG, CONTAINING FULL PARTICULARS. ORDER EARLY TO ENSURE PROMPT DELIVERY.

Prices from £18/10/-

We have bought the patent rights of the "PENANG" FRUIT GRADER and have added improvements and are now manufacturing them.

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109 Cromwell Street, Collingwood, Melbourne, Victoria

of a Board of Management, consisting of five members, this Board being elected from a Council of 22 elected at the Annual Conference, in proportions as follows:—Victoria (9 members), South Australia ((6), N.S.W. (2), Western Australia (1), Tasmania (1), making a total of 19 growers, with three representatives of the agents.

The Council must meet at least once a year; this will take the place of the annual general conference.

The Board, which is the controlling body, must meet at least once a month. The members are as follow:—Messrs. H. D. Howie, Renmark, S.A. (Chairman); A. E. Ross and J. B. Murdoch, Waikerie, S.A.; H. R. Sloan and T. C. Rawlings, Mildura.

The organisation may be summarised thus:—

(1) **Districts.**—Growers in the various districts will meet to discuss local matters, and to elect delegates to the State Conferences.

(2) **State Conferences.**—The State Conferences are to deal with State matters, and appoint the agreed number of members to the Federal Council.

(3) **Federal Council.**—To consist of 22 members (as previously mentioned).

(4) **Board of Management.**—To consist of five members, to be vested with the control of the Organisation.

Any district Association having matters to be brought before the Board could do so by communicating with their State members or by writing to the Secretary of the Association, Mr. W. N. Sumner, Collins-street, Melbourne.

The Australian Dried Fruits Association is not a selling organisation. It is a controlling force, and influence for the good of the industry.

An organiser is being appointed to visit growers and districts not as yet affiliated with the A.D.F.A., with the object of securing their affiliation.

The members of the first Federal Council are:—

Victoria.—Messrs. A. L. Johnstone, H. R. Sloan, L. G. De Garis, E. J. Roberts, T. C. Rawlings (Mildura), W. A. Edmunds (Red Cliffs), J. Gent (Nyah), D. A. Cockroft (Woorinen) and one from the Goulburn Valley to be appointed.

South Australia.—Messrs. A. E. Ross, J. B. Murdoch (Waikerie), J. D. Howie, C. A. L. Morant (Renmark), J. Victorsen (Clare), J. Minnis (Berri).

New South Wales.—No nominations in hand to date.

Tasmania.—Capt. Newman, Dromedary.

Western Australia.—Mr. P. H. Taylor, Midland Junction.

Agents.—Messrs. Gollin & Co., and Gibbs Bright & Co. (Melbourne), G. Wood & Sons Co. Ltd., Adelaide.

The recent A.D.F.A. Conference arrived at the decisions which affected the foregoing re-organised plan of administration.

At times the exchanges were heated, as can be well understood where earnest men hold sincere convictions.

It is satisfactory to note, however, that the A.D.F.A., as an organisation, has weathered the storm, and now enters upon a new career of usefulness.

Drying Grapes at Mr. W. J. Rowe's Vineyard, Mildura: in the foreground note the old method (trays): in the background the new (rack) system is seen.

CONDITIONING CITRUS FRUITS.

Further Information Desired.

(To the Editor "Fruit World.")

Sir,—In your April, 1923, issue, page 142, there is some information on "Conditioning" Citrus Fruits. One paragraph reads—"The methods of procedure is to confine the fruit in a compartment which can be made practically air tight, and to subject it to the products of incomplete combustion of kerosene or gasoline."

I attempted to "condition" some of my early "Sabina" Oranges this year, and though the fruit was full grown with a good sugar content, I did not succeed in getting a good yellow colour within five days.

The fruit was placed in a piano case (in boxes) and I boiled about a quarter of a tin of kerosene, placing a spout leading from a hole on the top of the kerosene tin into another hole cut in the lower side of the piano case, making sure that all carbonic acid gas would enter the case with the fruit.

Only sufficient ventilating space was left in piano case so as not to bring about complete combustion, but the results were not as satisfactory as I would wish.

I would be very grateful if you could supply me with further particulars as to the methods of manufacturing the "products" of kerosene, as stated in the article referred to.—Yours, etc.,

G. R. CLERK, Mapleton, Q'ld.

[Readers having experience on this subject are invited to write, giving details. We will ask our American friends, who supplied the original information referred to by our correspondent, to give us closer details.—Ed. "F.W."]

West Australia

District Crop Reports.

Mount Barker.

Report by Mr. J. McN. Martin, Mt. Barker (16/11/23):—

Principal crops, Apples and Pears.

Apples.—Prospect medium (some varieties right off, others heavy; balance medium. Last year's Apple crop heavy.

Pears.—Light crop expected; last year medium.

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COVENT GARDEN
LONDON, W.C.
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TASMANIAN AGENT
The Port Cygnet Fruitgrowers' Co-Operative Association Ltd., Cygnet

Varieties.—Apples (export), principally Dunn's, Jonathan and Cleos.; (local), Yates, Granny Smith, Rokewood and Romes.

Pears (export), W. Nelis, Josephine and B. Bosc. (Local) Williams'.

Karragullen.

Report by Mr. Thos. Price, Illawarra Orchard, Karragullen, 9/11/23:

All varieties of Apples promise to be a good crop.

Bartlett Pears, too, appear to have set a heavy crop.

No other fruits grown here.

Kelmscott.

Report by Mr. C. C. Molyneaux, Kelmscott, W.A. (15/11/23):—

Principal fruits:—

Oranges (Navel and ordinary), **Lemons, Mandarins** (Glen Retreat and Emperor).

Apricots.—Newcastle Early and Moorpark; a few Oullin's.

Peaches.—Bell's November, King Edward, Elberta.

Plums. — Santa Rosa, Burbank's, Satsuma.

Pears. — William's, Beurre Bosc, L'inconnue.

Apples.—Jon., Cleo., Dunn's and Rokewood. These are chiefly confined to hilly country; the flats do not appear to be satisfactory.

It is very hard to forecast, as we have just passed through a phenomenal season; rain continued right to October. Many Plum trees appear to have had two springs, as the trees are carrying advanced fruit and blossom: some trees dying, probably due to sour sap caused by a brief spell of sunshine, followed by incessant rain.

Early Apricots are short. Mid season, medium, late very scanty.

Peaches.—Early, medium, mid season poor, late also poor.

Plums.—Very irregular, probably short crop.

Pears look like a good crop. Apples promise well in suitable localities.

Last season's crop of Oranges was heavy, and combined with the retention of large quantities of Apples from export growers have had a bad time—in the earlier part of the season. With the exception of small lots of special Navels, other lines left no margin for grower.

Lemons also have been a drug, and some growers are budding over their Lemon trees, and others are inclined to neglect them for more remunerative ones. Mandarins were very disappointing; prices ruling very low, and notwithstanding the good crop, the returns have scarcely covered labor costs, to say nothing of capital outlay.

Donnybrook.

Report by Mr. Gus. Sharp, Donnybrook (11/11/23):—

Stone fruits: Light. **Apples:** Light to medium. **Pears:** Light.

Caversham.

Report by Mr. Chas. H. Wilson, Caversham (8/11/23):—

The Swan River Valley grows vines for the wine and dried fruit industries, and local Grape and overseas export markets, also a few Apricots, Peaches and Oranges for local markets.

The present prospects promise a satisfactory vintage, there are evidences of Black Spot, but continuance of present dry, genial conditions should dry the blight right out.

Last season there was a magnificent yield, but the unusually wet weather interfered with the drying very severely.

The dislocation of the local and overseas markets for dried fruits has caused disappointment to producers.

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A century's experience in handling
FRUIT OF ALL DESCRIPTIONS
All Consignments for U.K. will have Personal Supervision and Attention
Account Sales and Cheques despatched immediately after sale.

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Fruit and Vegetables sold for growers from all States.

Account Sales posted daily.

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Reference—Satisfied Growers in all States.

The Port of Hull.—Every modern facility for the prompt handling of fruit is provided at the port of Hull. The North of England counties of England are directly served by this port.

There is an express train service to all parts of England, while Hull is an important port for the despatch of fruit to the continent. The representative in Australia is E. Bechervaise, 51 Moorabool-street, Geelong, V., from whom all particulars can be obtained.

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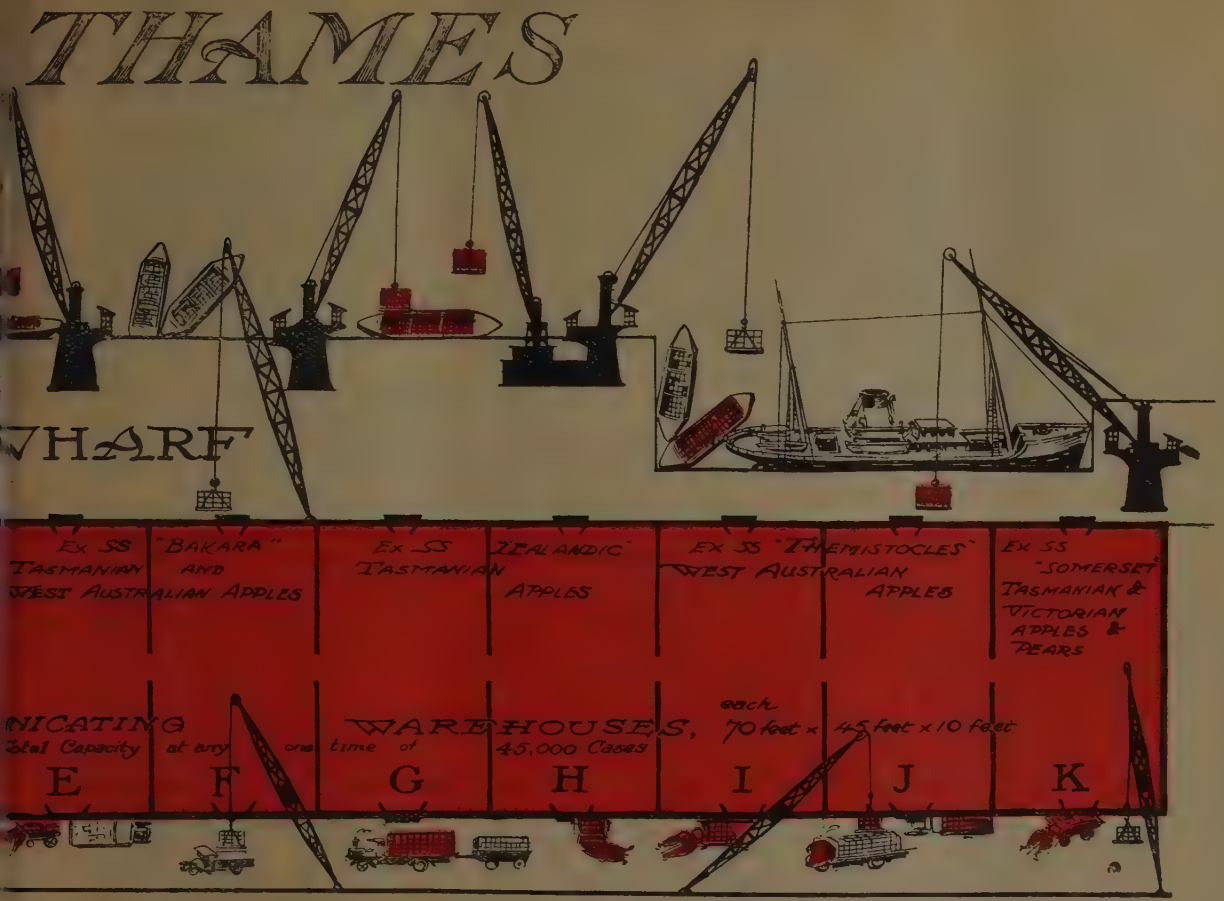

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No bumping along roads
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Then again ——

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West Australia—GEO. WILLS & CO. LTD., Perth & Fremantle. HENRY WILLS & CO., Albany

Tasmania

District Reports.

Apple Crop Medium.

The fruit crop prospects for Tasmania are given as follows by Mr. P. H. Thomas, the Government Fruit Expert. The report is dated Nov. 19th, and concludes, "it is rather early to arrive at anything very definite."

Apples.—The persistent rains that are being experienced throughout the State are having a very adverse effect on the Apple crops. The setting on the average is very patchy, fungus disease being prevalent. Most varieties are much affected with Black Spot, both the foliage and fruits being attacked by the disease. Some varieties, such as Scarlets, are almost a complete failure, and the crops will be lighter than usual. Unfortunately, the past good seasons with clean crops have lulled a number of growers to a sense of immunity from the disease, and spraying has been neglected. In such cases, the infection is bad, and has all the characteristics of the 1917 season.

Pears.—The Pear crop will also be light; although the average blossoming and fruit formation was good, there has been a heavy fall during the last few days. Black Spot is also prevalent amongst most varieties. The best means of control at the present time (given a sufficiently fine period) is to spray with either Lime-Sulphur 1-50 (at 32deg. Beaume test) or Bordeaux 1-1-40. The latter mixture will slightly russet tender varieties at this stage, but in cases of bad infection, it is advisable to use this fungicide to check the development of the disease.

Apricots.—Apricots have generally a heavy setting, the crops holding up well under the adverse conditions. In a few instances a certain amount of "splitting" is in evidence. This is occasioned by the continuous wet weather, and unless a change is experienced these crops will also suffer.

Plums.—These are generally good, medium to heavy settings being recorded in most districts.

Small Fruits.—These look very promising, and heavy crops should be harvested if the climatic conditions improve. More sunshine is required.

Strawberries are ripening very slowly, and are later than in previous years. Fine dry weather would be a big factor toward improving conditions and lessening the development of fungus disease.

Port Huon Co.

Mr. J. P. Piggott, M.H.A., Port Huon Fruitgrowers' Co-operative Association, gives the following interesting information, under date, Nov. 20th, 1923:—

The fruits in which we are mainly interested are:—Apples, Pears, Apricots, Black Currants, and Raspberries.

It is difficult at this stage to give anything like a definite idea of the coming season's crops, but from present indications it is apparent that there will not be more than a medium crop of Apples, Pears, Black Currants and Raspberries.

In the case of **Apples**, the Scarlet Pearmains have absolutely failed to set in any district, and there is also a partial failure in Crabs, Sturmers, Ripstons and Cox's. Cleos. have set well, but there is every evidence that Black Spot will be very prevalent. The weather conditions have been unfavourable for the setting of all

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Victoria

fruits, it being continuously wet and cold.

Pears in some districts have set well, while in others the setting is not nearly so good, and the Black Spot is already evident on the leaves and fruit.

There is a remarkable growth of Raspberry Canes this season, but the weather has not been conducive to the setting of the fruit. The season is also somewhat late, and a heavy crop is not anticipated.

The same applies to the Black Currants.

In regard to Apricots there is every indication that there will be a fairly large crop, provided the fruit remains on the tree, but should we experience hot weather, there is a great possibility that the fruit will fall. In some cases excessive rain has affected the trees, which are dying.

The crops last season were heavy in all the varieties mentioned, with the exception of Pears, which were light. Compared with last season, there will only be a 75 per cent. crop of Apples, Black Currants and Raspberries. Pears will be heavier, but by no means a full crop. Apricots will be about the same as last season, according to present indications.

Derwent Valley.

Report by E. D. Harrison, Hayes, Tas. (21/11/23):—

Apples are mainly grown here. These have set very heavily, except Scarlet Pearmains, which are very light, or a total failure in most orchards.

Black Spot has made its appearance, owing to the exceptionally wet season, and in some orchards has already ruined the Cleos.

As far as I have heard, the above remarks apply to the most of the Derwent Valley.

Franklin.

Report by Mr. D. E. Ryan, Franklin (Tas.) (19/10/23):—

Crop prospects.—**Apples:** Average half to three-quarter crop; Scarlets, failure. Black Spot prevalent, owing to continued wet weather.

Pears, heavy to medium. **Plums,** medium. **Small fruits,** prospects good.

Last year's crop heavy and clean. This year's crop much lighter, and more waste, owing to Black Spot.

Margate.

Mr. P. J. Worsley, Margate (Tas.) writes (19/11/23):—

The principal fruits grown in this district are Apples, Pears and small fruits (Raspberries and Currants, etc). In Apples, Scarlet Nonpareil, Sturmer, Jonathan, French Crab, Cleopatra and King Pippin are the principal varieties grown.

Prospects. — Apples and Pears light, owing to excessive rain during spring months, with Black Spot much in evidence.

Last season's crop was fairly heavy: we estimate this year's crop under half of last.

The continued rainy season has a very bad effect on the bloom of small fruits, and these are likely to be short also.

NORTHERN TASMANIA.

Messrs. Bender and Co. Pty. Ltd., Fruit Shipping Agents, Launceston, report (20/11/23):—

Crop reports received from various growers in the Tamar districts may be summarised as follows:—Blossoming very heavy, but continuous wet

weather prevented a good fertilisation, and as a result much of the blossom failed to set properly, and there has been a heavy shedding on many varieties. The wet season has been conducive to fungus diseases, and Black Spot is in evidence on susceptible varieties, especially Cleo.'s. The weather was particularly bad when the buds were in the "pink" stage, and effective spraying was almost impossible.

Present prospects point to Medium crops of Cox's, London Pippin, R.B., A.P.M., W.P.M., C.P.M., R.D.C., and P.D.N. Heavy—S.T.P. and Jon., and Light Cleo., S.N., Del., R.P., K.D., M.F.

Pears are very irregular, but taken on the whole will be on the light side. In some orchards there is a heavy crop of W.B.C., and B. Bosc has also a fair show of fruit.

Mr. Geo. Lawrence, West Arm, Tamar Valley, reports as follows:—With the exception of Jon. and W.P.M., which have set well, the prospects are for a medium crop. C.O.P., S.T.P., L.P., P.D.N., R.D.C., C.P.M.,

'Phone Central 8479

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Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.

Account sales with cheque daily.

and R.B. should all give average yields, but Cleos., S.P.M., A.P.M., and all the Pears have light crops.

The wet season has made spraying very difficult, and Black Spot is showing on some varieties, particularly Cleos. A spell of fine weather is badly needed.

Sidmouth and Richmond Hill.

Report by Mr. N. D. Wivell, Sidmouth, West Tamar (19/11/23):—

Apples and Pears are chiefly grown in these districts.

Last season's crop was fairly good, and being able to ship through Beauty Point, realised satisfactory prices on the whole.

There is every prospect of seven boats loading fruit from Beauty Point for the English market during the coming season, and heavy shipments are anticipated.

The prospects for the coming season are good for Apples, but very poor for Pears.

Owing to the excessive wet weather, Black Spot has shown up very much in all the Tamar districts.

Now that finer weather is prevailing, the growth is very marked, especially the undergrowth, which necessitates constant work in the orchards.

Lalla—Lilydale.

Mr. Frank Walker, Fruitgrower and Nurseryman of Lalla (Tas.), reports (20/11/23):—

The fruits grown in our district are Apples, Pears, Plums, and small fruits.

In Apples, early varieties are heavy; others, medium to light. Taken as a whole in this district, Apples are a medium crop, but very clean.

Pears.—Very light, and a good deal of Black Spot.

Plums.—On the light side.

Small Fruits.—Very good.

This season's crop of fruit, I think, taken all round, is light; last year's crop being very heavy.

The very wet winter and spring has hampered spraying and ploughing in the larger orchards this season.

Scottsdale.

Mr. Percy H. Tucker reports under date November 18.—The principal fruits grown are Apples, Pears, Plums, Quinces, Peaches, and lesser quantities of soft fruits (Raspberry, Gooseberry and Currants).

Season's Prospects.—Owing to the excessive rain and rough weather, the fruit crop will be light this season.

Last season's crop was good to heavy in parts of district, the coming season's crops will be undoubtedly lighter owing to excessive rain during blossoming.

Optimism and Appreciation.

Mr. Tucker continues:—

"The orchardist had a very good season last year, and in a few cases there will be an extension of orchard. In every instance where the grower took care of his orchard and exercised care and judgment in preparing his fruit for the market, he has been rewarded by profitable returns.

"I always read the 'Fruit World' with interest, and if growers would be guided by the advice given, their yields of fruit would be heavier and returns better; I do not know how you could improve such a comprehensive journal. There is advice for all in it, if only read carefully and acted upon.

Latrobe.

Report by Mr. A. Boatwright, Latrobe (Tas.), (24/11/23):—

Crop prospects.—Apples, medium to heavy. Varieties: Sturmers, Cleopatras, Jonathans, Munroes, Romes, Alfriston, Ribstons, Spitzenburg, Scarlet Pearmain, King David.

Pears.—Light (not many grown).

Apricots, Peaches, Cherries.—All light(not many grown). Same applies to berry fruits.

Plums.—Heavy. Last season light.

Last season's crop.—Apples and Pears, medium. Coming season prospects better.

Many orchards have been grubbed up and others neglected to such a state that they are likely also to be destroyed owing to low production. All orchards that are receiving proper attention are making good growth; looking well.

Spreyton.

Report by Mr. E. A. Walpole, Spreyton, Tas. (9/11/23):—

Edward Jacobs & Sons

Covent Garden Market LONDON, England

Solicits Consignments of Australian Fruit.

Tasmanian Representative:

W. D. Peacock & Co. Ltd

PRINCES WHARF, HOBART

Shipping Number 418.

The Apple is the principal fruit. Varieties — Jon., S.T.P., F.C.P., A.P.M., Delicious, M.F., N.Y.P.

Coming season's prospects.—Very light; a few favoured orchards medium.

Last season.—The crop was heavy. This season only half crop anticipated.

Many orchards have been given up and going back to scrub. Powdery mildew very much in evidence, growers using Lime-Sulphur and sulphate of iron spray.

Partner for Citrus Orchard Wanted.—Attention is directed to an advertisement in this issue for a partner for a Citrus Orchard, twenty miles from Sydney. Area, thirty-one acres. Partly under cultivation and bearing. Good soil. Permanent water. Cash required, about £350. Further particulars are obtainable from Mr. G. S. Jackson, Arthur-street, Mosman, Sydney, N.S.W.

New Zealand

Good Average Crops Anticipated.

The Director of the Horticulture Division (Mr. J. A. Campbell) has received the following reports from his officers regarding orchard and marketing conditions at the end of October, 1923:—

Auckland.—Apples: Heavy blossoming. **Lemons:** Average blossoming for summer crop. Oranges: Poorman, heavy flowering. Peaches: Although blossomed heavily, crop seem patchy (better indication later).

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Allwood Nurseries
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Large Receivers of Australian Fruits.
Solicit Consignments of
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Best market prices and prompt account sales returned.
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THE
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MURDOCH BROS., Hobart

Plums (Japanese), Strawberries, Nectarines and Pears, average. Brown Rot is attacking stone fruits in most orchards, causing considerable damage. Tomatoes under glass are looking well, and Strawberries from the old beds are now available.—(J. W. Collard).

Thames. — Apples: Fair setting most varieties. Humid conditions still prevail. Cultivation backward. Apricots: Poor setting except on Newcastles. Brown Rot very prevalent. Lemons: Looking well, heavy blossom. Nectarines and Peaches: Light. (Heavy rains during blossoming.) Pears: Considerable blossom infection. **Fireblight now in evidence.** Plums: Fair. Tomatoes: Outdoor Tomatoes well advanced, plants healthy. —(N. J. Adamson).

Waikato.—Apples: Setting freely. Apricots: Very light. Cherries: Good. Gooseberries: Heavy. Lemons: Looking well in most places, where the groves have received the necessary attention. Blossoming freely. Nectarines: Medium. Oranges: Poorman the principal variety grown; ample blossom. Peaches: Crops set freely. Brown Rot rather prevalent. Pears: Fairly heavy on several varieties, especially Williams'. Plums: Average. Plums (Japanese): Fair setting. Strawberries: Fair. Tomatoes: Indoor plants well forward. Outside planting now in progress.—(T. E. Rodda).

Poverty Bay.—Apples: Good. Apricots: Heavy. Extensive loss with Brown Rot; probably fair crop when harvested. Cherries: Fair to good crops. Gooseberries: Heavy. Nectarines: Heavy crops set, much depleted with Brown Rot. Peaches: Heavy crop set; depleted by Brown Rot, Leaf Curl, etc. Pears: Heavy. Plums: Fair to medium. Strawberries: Setting blossom well. Tomatoes: Indoor and outdoor plants full of vigour. Flowers setting well. Walnuts: Trees looking well. The spring season has been abnormally wet, and fungus disease in stone fruits is much in evidence.—(M. Davey).

Hastings.—Indications are for quite the average crop of stone fruits and Pears. The flowering period for Apples included a fortnight of very unsuitable weather. Though the bloom was heavy one would not expect a very heavy setting to result. Too early yet to give reliable estimate.

The area planted out to Tomatoes is quite as large as usual, and the conditions for establishment are good.

Gooseberries are in full crop; quality rather better than usual.

Cherries set well, but weather conditions are somewhat against early maturing.

Currants and berry fruits show indications for crop rather heavier than usual.—(W. H. Rice).

Manawatu and Wairarapa.—Apples: Fair. Apricots: Fair. Cherries and Plums: Good. Gooseberries: Heavy. Lemons, Oranges, and Walnuts: Few grown. Nectarines: Fair. Peaches: Rather light. Pears: Fair: Plums (English): Fair. Raspberries: Good. Strawberries: Good. Tomatoes: Well forward.

The heavy gales, rain, and hail which prevailed during the last three or four weeks somewhat damaged the fruit crop. At the present time it is impossible to determine if the ultimate setting of the various fruits will be light or heavy.—(J. W. Whelan).

Nelson.—Apples: a good average crop. Apricots: Fair. Cherries: Good. Gooseberries: Good average. Lemons: Trees blossoming. Nectarines and Peaches: Moderate. Pears: Crop uneven; generally good. Plums: Generally good. Strawberries: Average. Tomatoes: Good.

The rains have been moderate, and the weather favourable to fruitgrow-

Nelson Central.—Apples, good. (In somes orchards Dunn's light.) Gravenstein appear to be a good crop, and there will be more of this variety available this season. Prospects are for cleaner fruit than last season, but Black Spot is in evidence slightly on the foliage.

Apricots: Moderate. Other stone

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F. W. J. MOORE,
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fruits are insignificant in this district. Pears: Williams' heavy, almost free of spot. Winter Cole and Winter Nelis are patchy, the latter showing a good deal of Spot. Other sorts mostly good. Pear midge has made an appearance in several more orchards this season. Strawberries: Well forward, but require rain. Quantity limited.

The weather for the month has been very favourable for spraying operations, and has been fully availed of by the growers.—(J. H. Thorp).

Motueka. — Apples: Promise of a good crop. Good spraying season, less Black Spot than last season. Apricots: Medium. Brown Rot in evidence. Cherries: Good crop. Not as much Brown Rot as formerly. Gooseberries: Good and clean. Nectarines: Very medium. Peaches: Curl bad in some places. Pears: Only medium crop anticipated. Winter Cole fairly heavy. Nelis attacked with Black Spot. Plums: Fairly good. Raspberries promise good crop. Strawberries: Good average. Tomatoes: Good. Well ahead under glass. Outside just planted. Walnuts: Trees looking well. Too early to estimate crop, etc.—G. Stratford).

Marlborough.—Apples: Heavy crop indicated. Apricots: Good crop set. Cherries: Fair. Gooseberries: Good average. Nectarines and Peaches: Very fair. Pears: Medium . Plums: Good. Plums (Japanese): Heavy. Strawberries: Very good. Tomatoes: Outside—Fair to light crop.

Considerable damage has been caused to all classes of trees by flood water and by water logging where drainage is inadequate. Stone fruits particularly have suffered from the wet winter conditions, many having dropped their fruit, while others appear to have died out altogether.

Crops will probably be very good on all lands not affected by above conditions.—(C. Craigie).

Canterbury.—Apples: Heavy blossoming on nearly all varieties. Apricots: Patchy. Cherries: Crops set well. Gooseberries: Crops promise very well. Nectarines: Patchy. Peaches Light. Pears Heavy blooming. Plums: Good. Plums (Japanese): Good. Raspberries: Promising well. Strawberries: Affected by the heavy rains, and are patchy. Tomatoes Heavy plantings being made. Glasshouses well advanced. — (L. Paynter).

Otago.—Apples: Fruit setting well, with the exception of Ettrick district. Frost cause slight damage. Apricots: Frost caused slight damage in the districts of Ettrick, Roxburgh, Coal Creek and Earnscleugh. Cherries: Prospect of heavy crop. Gooseberries: Heavy. Nectarines: Heavy. Peaches: Prospect of heavy crop. Pears: Fruit setting well. Frost caused slight damage in Ettrick district. Plums: Heavy. Raspberries and Strawberries: Average.—(B. G. Goodwin).

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Capital,	Subscribed Capital,	Paid Up,
£100,000.	£70,000.	£35,000.

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A Leading Firm of London Importers report on a large shipment of pears packed in trays with our WOOD-WOOL. This consignment certainly travelled well and arrived in very good condition, the wood-wool used in packing appearing quite suitable.

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New South Wales

Interesting Crop Estimates.

MURRUMBIDGEE IRRIGATION AREAS.

Leeton.

Report by Mr. E. J. Polkinghorne, Leeton (20/11/23):—

The following are the crop anticipations:—

Apricots.—Light to medium (Trevatt and Moor Park).

Peaches.—Medium to heavy (canning and drying).

Plums and Prunes.—Heavy.

Pears.—Medium (Williams' and Packham's).

Grapes.—Heavy (drying and late table).

With the exception of Grapes, this season's crop is lighter than last season's, though the quality is likely to be better.

The season so far has been abnormally cool, and has every appearance of being much later than last.

Griffith.

Report by Whiting Bros., Griffith (19/11/23):—

The principal fruits are:—Apricots, Canning Peaches, Prunes, Oranges, Lemons, Table Grapes, Wine Grapes, Almonds.

Coming Season's Prospects:—**Apricots,** light to medium; **Peaches,** mostly light owing to Peach Aphis. **Prunes,** good. **Almonds,** good. **Oranges** and **Lemons,** very fine flowering, but too early to say.

All **Vines** came away strongly, and are showing well, but have not set yet. The promise is for good crop, free from disease.

There should be a large increase in wine tonnage, owing to new plantings coming in to their first real crop.

Last season the Apricots were generally carrying too much, and fruit was therefore smaller. Peaches, heavy. Prunes, light. Vines, fair average.

Richmond—Kurrajong.

Report by Mr. W. S. Arnold, Soldier's Settlement, Kurrajong (19/11/23):—

Prospects for **Citrus crop** in Kurrajong district are at present for heavy crop, with perhaps Mandarins excepted, which will be light.

The principal fruits grown in Kurrajong are:—Citrus varieties—Common Oranges, Parramatta Seedlings, Late Valencia, Washington Navel, Emperor Mandarins, Lemons, Lisbon, Sweet Rind.

Last year's crop was medium. This year's crop, with reasonable seasonable conditions, should be much heavier, although the district is at present badly in need of rain.

The citrus orchards on Soldier's Settlement are coming on well, and will, with reasonable luck, give about 2,000 cases of fruit for the season. The oldest trees on the Settlement are yet only three years, and this applies to about six or eight blocks out of a total of 45 blocks.

The extension of the railway from Richmond to Kurrajong is anticipated to start being constructed in a few days, after an agitation of 42 years.

Extensive pulping factory being built by Sir Henry Jones & Co at Richmond is nearing completion, and will be ready for treating this season's products.

Batlow.

Mr. N. H. Case, Batlow, reports (9/11/23):—

Crop prospects for the coming season are:—

Apples, light to medium; **Pears,** medium to heavy; **Prunes** and **Cherries,** heavy.

The crop generally promises to be lighter than last season, which was exceptionally heavy.

The Co-operative Cool Store is to be duplicated for the coming season. The enhanced prices obtained for stored fruit were very welcome after the low rates ruling on an over-supplied mid-season market.

A Co-operative Packing Shed is proposed, and is receiving enthusiastic support.

H. M.
WADE
& CO.
Fruit Merchants
Prompt Advices of Sales
— CHEQUES WEEKLY —
471 FLINDERS LANE
MELBOURNE

Running Stream.

Report by Sim Bros., Capertee (19/11/23):—

The crop prospects for Running Stream are—**Pears,** medium; **Apples,** light;**Peaches,** medium.

The principal varieties of **Pears** are—Williams', Kieffers, Winter Cole, Packham and B. de Cap.

Apples are Five Crown, Jonathan and Granny Smith.

Peaches are chiefly Late Red Italian Slip, Globe and Kiora.

The thrip was fairly thick here this season, and no doubt largely responsible for light setting in the Apples.

Goulburn.

Mr. Bert. Mills, Goulburn, reports (20/11/23):—

Crop prospects for Goulburn district are:—

Apples.—Very light, (about a third of last year's crop).

Pears.—Fair to bad (about half of last year's crop).

Cherries and **Apricots.** — Good, about same as last year.

Plums.—Very heavy, better than last year.

Peach and Nectarines.—Medium (same as last year).

Grapes.—Good.

Young.

District report by Mr. B. Cunich (20/11/23):—

The principal fruits grown in this district are Cherries, Prunes, Apples, Grapes, Peaches, Pears, Plums, Apricots.

This season's prospects for **Cherries** is good.

Prunes.—Hundreds of acres planted but not bearing yet.

Apples, very light. **Grapes,** good. **Peaches,** light. **Pears,** light. **Plums,** light. **Apricots,** very light. **Nectarines,** good.

Comparing this season with that of last year's Cherries are equally as good. Apples, Plums, Apricots last year extra good; Grapes, Pears, and Nectarines were good.

This district has developed. Hundreds of extra acres of Cherry trees, also Grapes, Apples and Pears, Nectarines, and enormous quantities of Prunes.

Principal varieties of **Cherries** grown here are as follows:—Early Lyons, St. Margarets, Early Purple Guigne, Nobles, Napoleons, Worder's Early Black.

Apples.—Granny Smith, Jonathan, Rome Beauty.

In **Grapes,** Waltham Cross, Black Cornichon, Black Muscatel, and White Muscatel.

Plums.—President, Grand Duke and Pond's Seedling.

Pears.—Williams' does extra well, bearing every year.

Apricots.—Early Moor Park and Late Moor Park.

Peaches.—Briggs Red May, Elberta and some later varieties.

Almonds do very well in this district.

Orange.

Report by Mr. W. E. West, Canoblas, Orange, N.S.W., (20/11/23):—

The principal fruits here are:—

Cherries. — E. Lyons, Napoleon, Florence, St. Margaret, Black Republican.

Apples.—P.D.N., Jon., Five Crown, Rome, Granny Smith.

Pears.—Williams', B. de Cap., B. Bosc, W. Nelis.

Prospects.—Generally light to medium; same varieties good.

Last season, crops medium to heavy.

Season very late this year, quite cold, with occasional frosts, although the frosts have not damaged the fruit.

Pomona—Wentworth.

Report by Mr. H. Wilkinson, Pomona, via Wentworth, N.S.W. (19/11/23):—

Pomona is an irrigation settlement, seven miles from Wentworth on the River Darling.

The settlement is practically only about four years old, although patches of citrus trees (10 to 12 years old) were planted previous to the subdivision.

This season's Citrus will total close on 5,000 cases, mostly sent to the Melbourne market. Next year's crop promises a very heavy one.

Dried Fruits.—Currants, Sultanas and Lexias are principally grown. The yield will total about 100 tons, this being our second commercial crop.

Of course, this is a big advance on last year, but as many of the vines are just coming into bearing, it is not fair to compare this and last season, as in the case of an older settlement.

The only export fruit case that automatically furnishes air spaces to the entire surfaces, top, bottom and both sides, of each case and cannot touch floor or wall of chamber is **The Climax Patent.** For particulars write **W. M. Green Baxter, Vic.**—(Advt.)

THE VALUE OF ORGANISATION.

Sam, the colored driver of an ox team, saw a little lizard crawling up a tree. He flourished his long whip and very deftlv snapped off the lizard's head. Further along the road, with skillful precision, he picked a horsefly off the fence with the same weapon.

A white companion finally said: "Sam, take a crack at that hornet's nest." Sam grinned and replied. "No, suh; no, suh, boss; them fellahs is awganized."

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(W. P. COOKSLEY)

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QUEENSLAND.

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Reference: Commercial Banking Co. of Sydney Ltd.

NEWS IN BRIEF.

Reports to hand from the main citrus centres of New South Wales, Victoria and South Australia, show that a heavy crop is anticipated for next season. Many new areas are coming into bearing.

Owing to the continued wet weather, Black Spot has seriously developed amongst the Apples and Pears in Tasmania.

Owing to the success of the Co-operative Cool Store at Batlow, the plant will be doubled for the coming season.

Experiments are to be conducted in Queensland in the selection of Pineapples, with the object of improving varieties.

The extensive pulping factory of H. Jones & Co. Ltd. at Richmond, N.S.W., is expected to be ready for the coming season's crop.

The Federal authorities are still withholding the final payment on the 1923 pool: despite Ministerial promises of settlement. This is causing considerable inconvenience to growers.

Owing to the depredations by starlings Mr. F. Walker is busily erecting wire netting to save the Cherry crops at Lalla, N. Tasmania.

Starlings are also making havoc at Geelong (Vic.): the young birds seem to have no fear of frightening devices.

ORGANISING THE EXPORT TRADE IN SOUTH AUSTRALIA.

Orchardists' Export Association.

The Apple growers of South Australia are endeavouring to unite and improve their shipping conditions, and have formed the Orchardists' Export Association. The proposals have been well received by the growers amongst the Adelaide Hills.

The grading will be uniform; fruit to be shipped under one parent label, each district to retain its name, each grower being allotted a number.

Mr. H. N. Wicks, of Balhannah, South Australia, is one of the moving spirits in this new organisation, and he will be pleased to answer any enquiries.

Fruit Grader Receives Certificate.—At the recent Bendigo (Vic.) Show the Lightning Fruit Grader was awarded a Certificate of Merit, this being the highest honor the committee could confer, there being no prize section on the schedule. Oranges from Northern districts and Apples from Harcourt and thereabouts were accurately graded.

Classified Advertisements.

Wanted and For Sale.

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

A valuable medium for assisting in the interchange of orchard equipment. If you desire to sell or purchase an implement, pumps, or any other orchard equipment, insert an advertisement in this column. Surplus stocks of cases, paper and other materials can also be disposed of through this column. Advertise your produce to growers in other parts.

Prices are as follows:—

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words, 9 lines to the inch.

Send cash with order.

BOOKS.

FRUIT WORLD ANNUAL AND TRADE RECORD, 1923 edition available. 3/- posted—9 Queen Street, Melbourne.

PRUNING FRUIT TREES, By G. Quinn. Illustrated. 4/9 posted—"Fruit World," 9 Queen Street, Melbourne, Vic.

FRUIT CASES.

I CAN supply Fruit Cases, any quantity. Prices reasonable. Write for quotations. ALF. BLOOM, Fruitgrower and Case Maker, Mitcham, Victoria.

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AGRICULTURAL LIME, ground fine, no lumps, excellent results. Truck loads promptly.

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EXPORT HOUSE desires to get in touch with Reliable Growers of

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Apply by Letter—

"MARKETS," c/o Gordon & Gotch.

Melbourne,

Queensland

Crop Estimates.

(By Our Correspondent.)

POMACEOUS AND STONE FRUITS are carrying good crops, and though slightly affected by dry weather, a satisfactory season is anticipated. (Stanthorpe district.)

Grape vines, particularly in coastal areas, are heavily laden, and fruit well forward.

A moderate crop of Mangoes, except of the most inferior varieties, is being carried. Northern ports are now supplying Brisbane markets.

Summer **Bananas**, except from favoured districts, are backward, and a rather high percentage of what are known as November bunches are appearing in plantations.

Pineapples, being much less affected by absence of moisture, are likely to be in plentiful supply.

Passion-fruit vines are suffering from dry conditions, consequently the crop is being retarded as well as reduced.

The prospects of fruit for coming season are not easily gauged, and also are subject to wide variation.

For instance, **Bananas** are constantly in fruit. **Pines**, more or less so, though there are two main crops (summer and winter),

Citrus, in the earliest stages, and **Custard Apples**, are only coming into flower.

Deciduous fruits have their season, as also have citrus (it is a long way off), but tropical fruits extend from December to June (apart from Bananas and Pines).

Though the absence of seasonable rains has been responsible for an almost, if not entire, absence of the usual fungoid pests, injurious insects, particularly capterpillars, have been numerous.

In some districts the **Tomato** crop has been practically wiped out. The Rutherglen Bug has also been very plentiful in some districts, and responsible for a fair amount of damage.

The fruit branch of the Department of Agriculture has been rather slow in accepting a recommendation from the "Fruit World" of upwards of two years since re the **selection and improvement of Pineapples.** It is now reported that the matter will be taken in hand this season, also that experiments will be conducted in two centres, and with paper mulch amongst Pine Apples.

Much prominence has been given to the matter in Hawaii, and it may here afford an opening of turning to account the megass (waste fibre, etc., of cane from which the juice has been extracted) from sugar mills—now used only as an indifferent fuel.

(See other Queensland Notes on p. 472.)

"Compliments on Splendid Production."

Mr. W. Cattanach, Chairman Victorian Water Commission, writes:—"I desire to acknowledge receipt of your "Fruit Annual" It will be of the greatest assistance to the Commission, and I desire to compliment you on the splendid production."

T. STOTT & SONS
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11 WESTERN MARKET, Melbourne

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Supplies of Corrugated Strawboard, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.
Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.
Agents for—
Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osaka Shosen Kaisha, London Assurance Corporation.
Correspondence Invited.
H. JONES & CO. LTD.,
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The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

A keen sense of fun and kindly humour is a fairly good indication of brains and force.

New South Wales

Murrumbidgee Irrigation Areas.

Canning Position.—Great satisfaction is felt by the growers at Leeton, Griffith and Yenda over the decision of the N.S.W. Government to operate the Leeton Cannery to its full capacity this season. Preparations are now being made for the Apricots. Large quantities of peas have already been treated. A special machine is installed at the factory which takes the entire pea vine and shells and grades out the peas.

Citrus.—The Valencia season is almost over. The fruit on the area has a tendency to turn green ofter the middle of November, so a protracted season is not possible under present conditions, although the Griffith Packing Shed is installing sweating rooms in which the color may be restored when necessary. The outlook for the next season appears good. Profuse blossoming is usually followed by a light setting, but this season the heavy show of bloom has resulted in a good setting, so that the next crop should be a heavy one all round.

A large acreage of Navels and Valencias will be coming into bearing in 1924, so that special efforts will have to be made to organise the selling of the crop.

Lemons, which last season were unsaleable or brought only low prices, are this year good property. All the winter crop of over-size fruit was sold to the cordial makers, whilst the balance were cured and stored against the warmer weather, and sold at excellent prices. Due to a warm wet winter, there is a good summer crop showing.

Leeton Organizations.—Since the failure of the M.I.A. Co-operative Co. the growers at Leeton are without a business organisation, around which to centre any efforts that can be made to link up the orchardists for their general welfare. For example, although a large amount of dried fruit is produced, the individual must now make his own arrangements regarding packing, grading, and sale.

The Coastal Farmers' Co-op. Soc. have offered to assist the growers in any attempt to organise the sale of their products, and a meeting is to be called to discuss the matter at an early date.

HE WAS THERE.

He was just a common sort,
Never dreamed of wealth or fame;
Plodded on and didn't try
Schemes to set the world aflame;
Kept a-going all the time,
Busy here and everywhere;
When a task turned up to do,
He was there.

—Selected.

THE FRUITGROWER to-day recognises that his industry is Australian-wide in character.

Growers in Tasmania are intensely interested in what is happening in the orchards of Queensland and Western Australia, though separated by thousands of miles.

New Zealand and South Africa are also big factors in production, and compete in the same world markets at the same time.

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Complete Spraying guide; also

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AUSTRALIAN TARIFF

	British Preferential.	Intermediate.	General.	Duty Agst N.Z.
Desiccated banana, banana drained or dried, per lb.	3d.	3d.	3d.	3d.
Prunes	4½d.	4½d.	4½d.	4½d.
Dates	1d.	1d.	1d.	1d.
Apples, pears, peaches, Nectarines and apricots, dried or evaporated, per lb.	4d.	4d.	4d.	4d.
Ginger, preserved (not in liquid), per lb.	4d.	4d.	4d.	4d.
Fruits and Vegetables, including Ginger, N.E.I. (preserved in liquid, or partly preserved, or pulped)—				
¼-pints and smaller sizes, per doz.	9d.	1/-	1/3	9d.
½-pints and over ¼-pints	1/3	1/9	2/-	1/3
Pints and over ½-pints	2/6	3/6	4/-	2/6
Quarts and over pints	5/-	7/6	8/6	5/-
Exceeding a quart	1/9	2/6	3/6	1/9
Honey, per lb.	1½d.	2d.	2d.	1½d.
Jams and Jellies, per lb.	3d.	3d.	3d.	2½d.
Hops, per lb.	6d.	9d.	1/-	9d.

NEW ZEALAND TARIFF.

	British Preferential.	Intermediate.	General.	Duty Agst Aus.
Fruits preserved in juice or syrup	25%	35%	40%	35%
Jams, jellies, marmalade and preserves, per lb.	2d.	2½d.	3d.	2½d.

(or package or that reputed weight whichever rate is higher, and so in proportion for packages of greater or less reputed weight)

	British Preferential.	Intermediate.	General.	Duty Agst Aus.
Currants, raisins, figs, dates, per lb.	free	1d.(x)	2d.(x)	free
Prunes	free	free	free	free
Other fruits dried, per lb.	2d.	3d.	4d.	2d.
Apples and pears (fresh) per lb.	1d.	1½d.	1½d.	1d.
Lemons, plums, cherries, peaches, nectarines, Medlars, apricots, quinces, tomatoes, grapes and passion fruit	1d.	1d.	1d.	1d.
Bananas, oranges, mandarins and grape fruit, per lb.	free	1d.	1d.	free
Fresh currants, raspberries, gooseberries, blackberries and strawberries	½d.	½d.	½d.	½d.
All other fresh fruits	free	free	free	free

(x) Duty suspended, but may be brought into operation by an Order-in-Council.

Note.—Under an agreement with South Africa, fruits, both "dried" and "green," enter New Zealand from South Africa free.

Tariff Items.

We quote the foregoing interesting items relating to the Australian and New Zealand Tariffs.

British Preferential: I.e., on goods, the produce or manufacture of and coming from the United Kingdom.

Intermediate: These duties are not operative, but may be applied in connection with any reciprocal tariffs agreed to by Australian and other countries.

General: Under this heading duties are chargeable from foreign countries and from countries other than United Kingdom which have not a trade agreement.

A trade agreement has been made between Australia and New Zealand, as will be noted from the items we have selected from the Tariff Schedule.

An agreement is under consideration between Australia and Canada, and the Australian Prime Minister, Mr. Bruce, is conducting negotiations.

It is hoped that as an outcome of these negotiations, Australian dried fruits will be enabled to enter Canada under a substantial preferential duty.

WHY PLANT TREES?

Trees add value to property.

Trees protect pavements from the hot sun.

Trees cool the air in summer and radiate warmth in winter.

Trees provide homes for thousands of birds that help man in his fight against injurious insects.

Trees provide homes for many animals that are useful to men for food and clothing.

Trees help man in his fight for better sanitation.

Trees help keep the air pure for man and the lower animals.

Trees supply a large part of all the fuel in the world.

Trees give us wood, and wood provides us with building material, furniture, implements, utensils, tools and other useful things in great variety.

Trees provide one of the most striking and permanent forms of beauty.

Trees improve the climate and conserve soil and water.

Trees provide a great variety of miscellaneous, useful products.

A NEW APPLE.

Referring to a paragraph which appeared in a recent edition, regarding a new Apple introduced by Mr. Frank Walker, Launceston, Tas., we have been asked to state that this variety has not been named "'Improved Red Delicious," as mentioned. So far the sport is still unnamed.

Mr. Walker states that specimens have been submitted to the Pomological Committee. He cannot understand why this body does not encourage the raising of sports. Provided sufficient time has lapsed, and the sport has become fixed, and shows a decided improvement on existing specimens for commercial purposes, they should be hailed with delight in other parts of the world. How much poorer the horticultural world would be if the same attitude were taken up in regard to sports of Roses, Carnations, and a wide range of other plants, including fruits.

The particular sport referred to above has been under observation in our orchard, states Mr. Walker, for ten years, and shows no sign of reversion, but seems to improve with time.

No scions are yet available for distribution.

"FRUIT WORLD ANNUAL" APPRECIATED.

A grower writes:—"I received my copy of 'The Fruit World Annual' for 1923, and I am very pleased with it. I was very interested in comparing the figures of 1919-20 with those of 1921 and 22. By doing this it will be seen that the fruit industry is becoming more important each year. Last year's 'Annual' also appreciated.

THE BIG LITTLE THING.

A wealthy man, whose whole life was engrossed in increasing his riches, went to a philosopher and complained that he got no pleasure out of life and found the world a dull place.

"Lend me a sovereign," said the wise man. "Now," continued he, "this is a very small thing in itself, but if I bring it close to my eye it shuts out the sun and the scenery and makes everything dark. That is your trouble."

Fruitgrowers, Exporters

Throughout Australia and New Zealand

— Send your —

APPLES, PEARS, ORANGES

—— to ——

T. J. JOHNSON & CO.

Fruit Salesmen

ESTABLISHED IN

Liverpool, Manchester, Leeds, Hull

A population of 40 million people, all large fruit eaters, is reached through these centres.

Some Good Reasons why Australian Fruit should be sent to
LIVERPOOL MANCHESTER AND HULL

(1) These ports serve the large populations in the North and Midlands of England, also Scotland, Ireland, and Continental Markets.

(2) Some of the largest coal fields are situated in these centres, the hardworking population are big fruiteaters.

(3) Quick unloading and despatch of fruit is provided.

(4) Cold storage facilities are available.

(5) Direct shipments to Liverpool, Manchester and Hull save extra handling charges as is the case when fruit is transhipped from London.

(6) Shipments should be made to T. J. Johnson & Co., because they give you the choice of the three ports and their efficient selling Organisations which are established therein.

(7) T. J. Johnson & Co.'s regular circle of buyers and wide distributing channels enables them to secure highest prices.

(8) The way to develop new markets is to concentrate on those British outports which are earnestly striving to increase their trade in fruit with Australia.

WRITE FOR ADDITIONAL INFORMATION.

Agents:

VICTORIA.—Messrs. INTERNATIONAL FRUIT & MERCANTILE CO., 410-414 Flinders Lane, Melb.
TASMANIA.—Messrs. E. R. COTTIER & CO., 82 Collins Street, Hobart.
SOUTH AUSTRALIA.—Messrs. BROCK & BATCHELAR LTD., Port Adelaide.
WESTERN AUSTRALIA.—GEO. EVANS & CO., 46 Mouatt Street, Fremantle.

Poultry Notes.

(By Ian P. Hamilton.)

WITH THE EXTENSION of the exceptionally cold and wet weather right into November, breeders will have to exercise special care with their chicks. It is in such a damp season as this that chicken pox is likely to develop if the yards are not kept scrupulously clean and frequently changed.

The symptoms of this disease appear in the shape of eruptions of yellow warts on the heads of the birds. These warts vary in size from a pinhead to a pea, and are found on all parts of the head that are free from feathers.

The common form is confined to the head, but in very severe cases it may spread to other parts of the body.

The bites of fleas or mosquitoes do not cause the disease, but may facilitate the entrance of the germ through the sores. Sore heads appear to flourish amongst late hatched chicks in wet weather.

It is always safer and easier to prevent than to cure. Therefore, keep the house dry, well lighted, free from draughts, and well ventilated.

Provide roosts for the birds, and do not allow chicks to crowd into the corners of the house.

See that the house is cleaned out regularly and thoroughly, followed by a disinfection with a solution containing 4 per cent. carbolic acid, and 96 per cent. water.

Where the disease has appeared in a flock, remove all well birds to fresh ground and uninfected houses. These should be driven into a corner of the shed and with a fine mist sprayer, spray a 10 to 1 solution of some good coal tar disinfectant (such as Zenoleum) upon the heads of the birds.

It is also well to spray all late hatched chicks once a week, as above outlined, as soon as sore-head is known to exist in the neighbourhood. Individual treatment is best given by dipping the affected birds into a 2 per cent. solution of potash permanganate, following this, after the bird is dry, with an application of carbolic ointment or glycerine, containing 2 per cent. of carbolic acid.

Common colds can also be similarly treated, but omitting the application of healing salve.

DECEMBER REMINDERS.

Inbreeding is probably the cause of much of the mortality reported amongst chickens this season.

* * *

Feather eating is brought about by a lack of nitrogenous foods, insufficient green food and lack of exercise. The best cure is to put the birds immediately on free range for a time.

* * *

Too much grain and an absence of sufficient mineral salts (green feed) usually causes liver disease. Birds so affected will not lay well.

The addition of a little sulphur to the mash will reduce the possibility of heat apoplexy.

* * *

Maize, linseeds and all such heating foods should be entirely discarded during the summer months.

* * *

Damp dust baths are at this time most important. When the temperature rises above 85 in the shade, the fowl must have opportunity of cooling the body and removing the pests which incubate upon it.

* * *

All stock not required for next year's breeding pens should be marketed this month. It is unprofitable to keep them over the moult.

* * *

The removing of perches and thoroughly painting with crude kerosene will keep down the red mite.

Bee-Keeping.

Starting an Apiary.

THE NEW SOUTH WALES Government Apiculturist (Mr. W. A. Goodacre) has supplied the following instructive details concerning the methods which should be observed in the formation of an apiary.

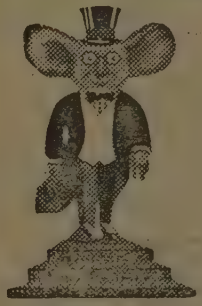
The information is based upon the experience gained when an official apiary was established in that State last year.

"Having decided," he states, "on the location for an out-apiary—three miles distant from any established farm, and with a permanent water supply available—the site was fenced, a honey-room built, and stands for the hives set down.

"The next procedure was to find and remove all bees from bee-trees in the neighborhood during the early spring.

"To find the bee-trees, we had to make a systematic search of all watercourses and supplies, and any bees found obtaining water were carefully sight-lined and their home found."

The Difference Between Profit and Loss Lies in Clean Orchards



A New Era in Orchard Sprays

GUMLYPTA ORCHARD SPRAY

The combined insecticide and fumigant that can be used on your trees at any time of the year, and costing less than 3d. per gallon for effective strength.

Destroys Woolly and all Aphis, Red Spider and all Scale Insects, White Louse, White and Pink Wax. We recommend 1 part Gumlypta to forty parts water for general purposes.

GUMLYPTA ORCHARD SPRAY is Eucalyptus Oil and other insect destroying oils scientifically blended with Carbon Bi-sulphide, etc., so as to mix with water at any strength.
Prevents Fungus growth and Leaf Curl, etc.
Thousands of gallons sold throughout Yanco, Gosford, Wyong, Orange, Richmond (N.S.W.), Mildura, Castlemaine (Vic.), Stanthorpe, Mapleton (Q.), and the Huon (Tasmania).

PRICES:—7/9 per gallon in 4 gallon tins, 8/6 in 1 gallon tins, F.O.B. Sydney.

PAMPHLET AND TESTIMONIALS ON REQUEST.

GILLARD GORDON (Aus.) LTD., Rozelle, N.S.W.

Raising Queens.

"During October," continues the expert, "we were in a position to place select stock on the prepared site with the prospect of raising queens with little risk of interference in the breeding from an outside source.

"To start the out-apiary, five of our best colonies, selected from 150 hives, were transported to the new site. To make sure that a good supply of drone bees would be provided for future mating purposes, previous to transportation each of the select colonies was given a fair supply of drone comb, placed in a position convenient for the queen in the brood chamber.

"From the best colony of the five selected ones we raised 24 queen cells.

"Ten days after the larvae were grafted, the cells were ripe enough for removal, and 24 nuclei colonies were formed at our other apiaries and transported to the new site, where a queen cell was given to each one.

"In the forming of the nuclei colonies special care was taken to see that no drones were put in.

"After the queen cells were put in the hives the young colonies were not interfered with for 14 days, when all except three were found to have laying queens. The three queenless ones were assisted by placing a frame of brood in each, and giving another queen cell which had been raised for such emergency.

"The season being a good one, the young colonies were progressive and quickly built up to a populous condition.

Strong Colonies.

"By following the procedure outlined," says Mr. Goodacre, "we had 53 colonies going strong during January, and were enabled to extract a good surplus of honey from them.

"Remarkably good results were obtained in the quality of the breeding, all queens were purely mated, and upon appearance it is safe to say were from the drone progeny of the five select queens with which the apiary was commenced.

"The returns from this apiary were always of a very high standard, and, apart from the financial aspect, the manipulation of such colonies was easier and of more interest than is usually the case.

"Apart from the advantage gained in the one particular apiary, the bee-farmer can raise queens to re-queen stocks at other apiaries.

"In the extension of operations a few of the select stock from such a farm can be removed to provide special breeding on a new site."

SPIDERS.

There are several species of spiders which prey on bees. The black spider with a red mark will increase rapidly in an apiary if left undisturbed, and will exact a heavy toll in bees.

The lurking places under covers and other shelter spots about hives should be periodically examined, the spiders killed and the baloon-like cocoons containing their eggs, burned.

ABOUT BEE STINGS.

Bee-keepers, when working amongst their hives, should wear light coloured clothes if they wish to avoid stings. Bees have a decided objection to anything black, especially if it is rough or fuzzy.

* * *

To reduce the effect of a bee-sting, it should be removed at once by scraping it away with the fingernail or rubbing it off on the clothes, and on no account should it be picked off with the finger tips, as that cannot be done without pressing the poison bag and injecting the whole of its contents into the sting.

* * *

Avoid working amongst the bees with strange odours on the hands or clothes. This will often cause bees to sting. They dislike such things as camphor, kerosene, turpentine, carbolic, and eucalyptus oil.

* * *

Avoid standing in the line of flight of the bees leaving and returning to the hive. This also causes them annoyance.

* * *

But even bee stings have their uses, and of late years medical men have been using them for the cure of certain forms of rheumatism.

"The 'Fruit World Annual' contains a great deal of useful information, and I am very glad to have a copy."

F. DE CASTELLA,
Victorian Government Viticulturist.

TO FORDSON OWNERS

FIT

"SAFTEDRAFT"

FOR EFFICIENCY, SAFETY, AND ECONOMY

BALHANNAH DECIDUOUS NURSERIES

Postal Address - - - BALHANNAH, SOUTH AUSTRALIA

Enquiries Solicited. *H. N. WICKS, Proprietor.*

FIRST!

..THE..

Latham Dehydrators

The Widest Fruit Drying Experience in the world is behind these plants. The best possible recommendation is the extent of one's patronage. My plants attract by far the largest drying business in the Southern Hemisphere.

Some Installations

Purchaser	Principal Fruits
Merbein Dehydration Trust, Mildura	Sultanas
Tasmanian Dehydration Pty. Ltd. Bridgewater	Apricots Prunes Apples
Charles Martin, Yackandandah	Prunes
Swallow & Ariell Ltd. Port Melbourne.	Carrots Turnips Cabbages, etc.

Lemon Processing Plants.

Dried Fruit Graders

Dried Fruit Boxing Presses

Apple Slicing Machines

Belting Pulleys, Shafting, Bearings, Engines and Boilers, Cranes and Hoists, Piping, Trucks, Conveyors, Thermometers, Fruit Trays etc., etc.

D. J. LATHAM

157 Queen Street,
MELBOURNE,
AUSTRALIA.

Without Ammonia. With Ammonia
Balanced Plant Food in Peach Orchard
Produces Bearing Wood.

Potash and Phosphoric Acid

Ammonia, Phosphoric Acid and Potash.
Balanced Plant Food Increases Growth.

THE MEANS of supplying to your trees, in the past, a balance ration of plant food has been a problem to which you have devoted considerable attention. While the question of phosphoric acid and potash has not occasioned you much concern, it has been extremely difficult to arrive at a decision as to the source of supply of

NITROGEN

the most important and expensive element in the dietary of plants, and the one unfortunately, of which the soil appears to have the least power of retention.

Nitrogen is a stem and leaf producer. It develops new wood, and adds a healthy green colour to the foliage, and is specially necessary for trees in bearing, ensuring reasonable growth of wood, abundant formation of fruit spurs, plenteous supply of blossoms, and complete development of the fruit.

SULPHATE OF AMMONIA

is at present the cheapest and most highly concentrated nitrogenous fertiliser on the Australian market, and wherever it has been applied to orchard trees results have fully justified its continued use as a means to

Increased Yields of Better Quality Fruit

Sulphate of Ammonia contains approximately 24½ per cent. ammonia, equivalent to 20 per cent. nitrogen in a form readily assimilated by plants. It may be used alone as a top-dressing, or in mixtures for a general application, containing potash and phosphoric acid.

Of special interest to Orchardists is handbook entitled "Productive Fertilisers," which deals with sulphate of ammonia in relation to all forms of agriculture, and with slight modifications to suit local soil and climatic conditions, the tables quoted for various crops might be followed throughout Australia. Copies of handbook "Productive Fertilisers" mailed free on request to:—

THE AUSTRALIAN SULPHATE OF AMMONIA PROPAGANDA COMMITTEE,
360 Collins Street.
MELBOURNE, Vic.

N.S.W. and Queensland: The Australian Gas-Light Co., Haymarket, Sydney: The Broken Hill Prop. Co. Ltd., 28 O'Connell St., Sydney; The North Shore Gas Co. Ltd., 193 Alfred St., North Sydney.

Victoria and Tasmania: The Metropolitan Gas Co., 196 Flinders St., Melbourne; The Broken Hill Prop. Co. Ltd., 320 Collins St., Melbourne.

South Australia and Western Australia: South Australian Gas Co., Waymouth St., Adelaide.

In the Home Circle

USEFUL HINTS

Preparation of "Sun-Raysed" Dried Stoned Fruits for the Table.

When you buy one pound of these fruits you actually receive 6¾ lbs. of choice ripe fruit with only the moisture and stones removed.

All the health-giving properties of "Sun-Raysed" fruit—Vitamines, Fruit Sugar and Laxative juices, are retained, and soaking in water only is necessary to restore the fruit to its original size, colour and flavour.

It is all in the Soaking!

To Prepare Dried Peaches for Dessert.

Place ¾ lb. of fruit in roomy dish. Sprinkle level spoonful of carbonate of soda on them and cover with boiling water. Soak for one hour only. Pour water off, cover with cold water, and soak for 24 hours. Remove skins, which will now readily come off, make syrup, pour over fruit when boiling, and serve when cold with cream or custard.

Syrup: ¾ lb. sugar to 1 pint of water. Boil for ten minutes. The juice of half a lemon added is an improvement. Soaking for a few hours in the syrup improves the fruit.

To Prepare Dried Apricots for Dessert.

Place in fresh cold water for 12 hours: the fruit is then placed in a pan with fresh water and stewed or simmered over a slow fire for 20 minutes, sugar being added in the last five minutes only, so that the syrup does not become thick. Serve when cold without removing the skins.

Peach Jam.

1 lb. Sunraysed Peaches, 4 pints water, 3 lbs. sugar, 2 Lemons, 1 oz. blanched Almonds. Wash Peaches thoroughly in cold water for five minutes. Place in preserving pan and cover with 4 pints boiling water. Soak for 24 hours. Cut peaches into four pieces. Boil for 20 minutes, adding the juice of 2 Lemons and the rinds; add 3 lbs. sugar, 1 oz. Almonds and boil quickly for 30 minutes, or till jam sets when tested. Remove Lemon rinds after boiling for ¼ hour with the sugar. This makes 6-6½ lbs. of jam of remarkable quality and flavour.

It is so simple! A child can make it!

Apricot Jam.

One pound of Sunraysed Apricots, 3 pints water, 3 lb. sugar, 1 oz. blanched Almonds. Wash Apricots in cold water, and soak for 16-20 hours in 3 pints of water. Boil half an hour, then add 3 lbs. sugar, 1 oz. Almonds, and boil for another half-hour, or until jam is thick enough. After adding sugar keep the jam well stirred. This makes 5½-6 lb. of jam, which surpasses that made from fresh fruit in colour and flavour.

Why make Apricot Jam on a hot December day?

Dried Nectarines.

Place in fresh cold water for 12 hours; the fruit is then placed in a pan with fresh water and stewed or simmered over a slow fire for 20 minutes, sugar being added in the last five minutes only, so that the syrup does not become thick. Serve when cold without removing the skins.

Dried Pears.

Are prepared in the same way as Apricots, and may also be used as a dessert fruit without preparation.

Dried Prunes.

Place in fresh cold water for 12 hours; the fruit is then placed in a pan with fresh water and stewed or simmered over a slow fire for 20 minutes, sugar being added in the last five minutes only, so that the syrup does not become thick.

With all fruits care should be taken to avoid over-cooking, which causes the flesh to leave the fibre; the fruit should be served firm, and not mushy, the aim being to restore the appearance and flavour of the ripe fruit.

The far-famed Sunraysed vine products—Currants, Lexias (pudding Raisins) and Sultanas—need little mention here.

During the drying process the sun converts the luscious Grape fruit juices into Grape sugar, and analysis proves that Grape sugar is Nature's own concentrated and energising food, richest in vitamines, iron and other properties necessary for GOOD HEALTH.

To Business Men: A few Lexias or Sultanas between meals make a perfect pick-me-up.

To Sportsmen: Take a few Raisins to sustain you, as they are concentrated energy.

To Parents: Children like Raisins, and remember that Grape sugar contains in a concentrated form the vital properties for building up sturdy and healthy bodies.

[Extract from booklet issued by A.D.F.A.]

Peach-Orange Marmalade. — Use one (or two) Oranges to one dozen firm yellow Cling Peaches; halve and peel Peaches and put through meat chopper. Put Oranges through chopper, rinds and all. Add three-quarter weight (or equal) sugar, stir well and cook together slowly until clear. Seal in small jars, or use jelly glasses.

Peach Jam with Grape Juice.— When canning Peaches there are always a few unshapely or broken pieces in each kettle. Do not put these into jars with the perfect halves. Collect them in a dish and set aside. When through canning, cook a few bunches of colored Grapes not quite ripe, strain juice, add sugar for jelly and put on to boil. Chop Peaches, or stir into pulp, and add to boiling syrup. Cook until thick. This makes a beautifully colored jam with deliciously blended flavours.

Ramco, S. Australia,
20th Oct., 1923.

The Editor, "The Fruit World."

Sir,—As you know, I have taken the "Fruit World" for many years, and though I receive several other similar publications, I still consider it the best journal I get, and look forward to its monthly budget of information and news for fruitgrowers—not forgetting the advertisements.—Yours faithfully,

J. J. O.

STONE FRUITS
CITRUS TREES
and QUALITY ROSES

A Good Start means Everything!

BEFORE PURCHASING send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

LASSCOCK'S NURSERIES Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

Australian Commonwealth Line

FAST PASSENGER AND CARGO SERVICE TO LONDON

Via Adelaide, Fremantle, Colombo and Port Said, transhipping at Colombo for Calcutta, Rangoon, Madras and Bombay : :

VESSELS SAIL AS UNDER :—

	Tons	Brisbane	Sydney	Melbourne	Adelaide	Fremantle
T.S.S. JERVIS BAY	13,850	1st Dec.	8th Dec.	13th Dec.	17th Dec.	23rd Dec.
,, LARGS BAY	13,850	22nd Dec.	29th Dec.	2nd Jan.	5th Jan.	10th Jan.
,, HOBSONS BAY	13,850	14th Jan.	19th Jan.	23rd ,,	26th ,,	31st ,,
,, ESPERANCE BAY	13,850	9th Feb.	16th Feb.	20th Feb.	23rd Feb.	28th Feb.
,, MORETON BAY	13,850	4th Mar.	11th Mar.	19th Mar.	22nd Mar.	27th Mar.

Taking Wool, General and Frozen Cargo at Lowest Rates.

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Offices: BRISBANE SYDNEY, MELBOURNE, ADELAIDE,
AGENTS AT ALL OTHER AUSTRALIAN PORTS

"The Cock Croweth, but the Hen Delivereth the Goods"

Why! we can crow too, because we are delivering the right Goods and plenty of 'em. Read what these two Fruitgrowers have to crow about :---

Blacker's Orchard and Cannery Company,
Mooroopna, 24th January, 1923.

Dear Sirs,—

Enclosed you will find our cheque for £16/10/- in payment of the ELLIS FRUIT GRADER we purchased from you.

We are pleased to say that we are thoroughly satisfied with the machine, and find it a great saving of labour. We estimated that after having put through the first thousand cases of Apricots the saving in labour had more than paid for it.—Yours faithfully,

BLACKER'S ORCHARD & CANNERY CO.
Per H. G. Hart, Manager.

"Eastcott" Orchard (Wm. F. Salmon's), Werribee,
24th April, 1923.

Ellis Fruit Grader Coy., 226 Flinders Lane, Melbourne.

Gentlemen,— In reply to yours of the 20th March, re the "ELLIS" FRUIT GRADER.

During the six months I have had it in use on my orchard, I have found it a great boon, especially as regards the grading of Apricots, Pears and Apples. The "Ellis" is a great labour saver, and has no doubt "Come to stay."—Yours faithfully,

p.p. Wm. F. Salmon,
(Signed) H. G. COLCLOUGH.

Price, £16/10/- machine ; £21/10/- with table and hopper

ELLIS FRUIT GRADER CO. 226 Flinders Lane, Melbourne, Vic.

COLONIAL AND INTERSTATE AGENTS:—QUEENSLAND—Sthrn. Q'land Fruitgrowers' Assn., Roma St., Brisbane... N.S.W.—H. H. Hinds Ltd., 484 Kent St., Sydney. TAS.—Buchanan, Davidson & Co. Ltd., 7 Murray St., Hobart. STH. AUS.—Premier Machinery Co., Morphitt St., Adelaide. NEW ZEALAND—A. Simmonds Ltd., Heretaunga St., Hastings. SOUTH AFRICA—Oswald Bros., Cape Town.

Orchard, Vineyard and Farm Implements

D. HARVEY

BOX HILL - - - MELBOURNE

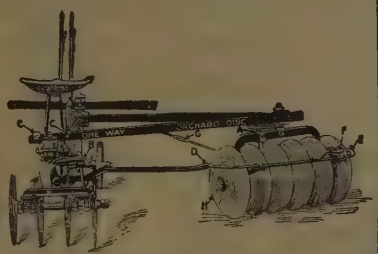
NO. 10 S.F. GENERAL PURPOSE PLOW. High Steel, Goose-neck Beam, Fixed Handles.

"HARVEY" GOOSE-NECK S.F. PLOW. With shifting or fixed handles. Made in 7, 8, 9 and 10 sizes.

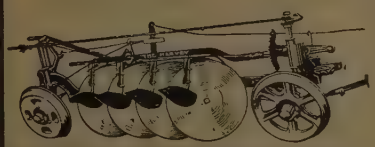
"HARVEY" ORCHARD PLOW.

"HARVEY" 2-FURROW SHIFTING ORCHARD PLOW.

SPRING TOOTH RIDING CULTIVATOR.



"HARVEY" ONE-WAY ORCHARD DISC CULTIVATOR.



4-FURROW POWER LIFT TRACTOR PLOW.

"HARVEY" GRAPE HOE.

"HARVEY" SPRING TOOTH CITRUS & ORCHARD CULTIVATOR.

LIGHT 2-FURROW ORCHARD DISC PLOW.

Office and Works:

D. HARVEY, Box Hill, Melbourne, Vic.

Show Rooms: F. R. Mellor, 440 Elizabeth St., Melbourne

Write for New Illustrated Catalogue

Victoria

At a meeting of the Victorian State Fruit Advisory Board, Hon. M. E. Wettenhall presiding, Mr. W. J. Foster urged that the State Government should make up the difference between what the canneries needed and what the Federal Ministry offered.

The Railway Department notified that they would carry single cases from the country to the suburbs at goods rates.

The Citrus Association was congratulated on its recent successful shipment of Oranges.

Central Association Meeting

At the quarterly council of the Victorian Fruitgrowers' Central Association (Mr. V. R. McNab presiding) divergent views were expressed by berry growers. With regard to the proposed establishment of a Fruit Bureau, a committee was formed to confer with the Housewives' Association.

Mr. Routley, United Berry Growers' Association, said his Association had orders for 3,000 buckets of berries for direct delivery to householders.

In regard to proposed grading regulations, metropolitan growers opposed the marking of open cases, and requested to be consulted before fresh regulations were drafted.

It was stated that the Minister's idea was that Apples, Pears, etc., should be sold by number instead of by the lb.

Duty on Sulphur.—The Chamber of Agriculture notified that the duty on sulphur had been remitted, and that a bounty of £2/5/- per ton was now to be paid on sulphur won from Australian ore.

In regard to export grading regulations, several letters were received from Interstate Associations, protesting against the unauthorised additions by the Customs Department to the grades, as previously agreed upon.

Satisfaction was expressed that the unauthorised additions had been withdrawn.

Tyabb.

The monthly meeting of the Tyabb Fruitgrowers' Association was held on November 22nd, the President, Mr. H. J. Willoughby, being in the chair. Mr. R. E. Boardman ("Fruit World") addressed the meeting, and urged closer unity amongst primary producers. Of the annual Australian production of £350,000,000, primary production amounted to £210,000,000, or nearly two-thirds of the total. Political power, however, was in the cities, there being one-third of the population of the Commonwealth in two cities. The dislocation of the soft fruit industry had been caused by ill-directed Government action. Instances of successful organisation amongst fruitgrowers were given. A

vote of thanks was carried, on the resolution of Messrs. Young aand Mair.

It was decided to request that the monthly report of the Central Executive be forwarded more promptly.

There is a fair crop of fruit in the Tyabb district, though Apples are much lighter than last year. The fruit is reported to be clean.

Presentation to Mr. R. Crowe.—Mr. Robert Crowe, Superintendent of Exports, Victorian Department of Agriculture, was recently presented with a testimonial and a wallet of notes at a meeting of export trades, when Mr. Crowe's service to the industries was suitably acknowledged.

Mr. Crowe leaves shortly to take charge of Victorian exhibits at the British Empire Exhibition.

Growers' Successful Organisation.

Quantong.

Growers at Quantong (Vic.) decided three years ago to pool their fruit locally, and to run a wholesale distributing business. Two Associations were formed, each having about 25 members, but at the end of six months one enterprise failed, whilc the other to-day is in a sound position, having absorbed almost all the members of the defunct Company.

The membership of the organisation known as the Quantong Fruitgrowers number 43. Last year was the third successful period, the organisation having placed 50,000 cases of fruit, paying £12,000 in cash to the growers, and a further bonus of 7½ per cent.

One of the reasons for success is the keeping down of overhead expenses, etc. The management is in the capable hands of Mr. C. H. Jost.

It is noted that Growers' Associations in other districts are endeavouring to secure trade in fruit in the western end of Victoria, which is considered locally to be overlapping, as the Quantong organisation definitely caters for this trade. It is considered that if it comes to the question of price-cutting to secure the trade, it is the grower who will suffer.

The Commonwealth Fruit Pool last season was a decided help, as a considerable quantity of Apricots and Pears were placed in bulk, thus clearing the market and allowing the balance of the fruit to be placed.

The policy of the "Fruit World" regarding the sugar embargo is appreciated, and it is considered that pre-war conditions should again operate, allowing the factories to be unfettered in purchasing sugar for processing fruit crops.

Messrs. H. M. Wade & Co., 471 Flinders-street, Melbourne, have been appointed Victorian agents for Swann & Co., Fruit Importers, London. Swann & Co. handle all classes of fruit from various parts of the world. They are specialising in the handling of Australian Grapes.

WANTED PARTNER

FOR

Citrus Orchard

situated 20 miles from Sydney, and 2 miles from train on main road. 31 acres, partly under cultivation and bearing; black virgin soil, and permanent water supply. Easterly aspect. All necessary implements.

Cash required, about £350, but terms can be arranged. No agents.

Practical experience not absolutely necessary, but incomer must be prepared to work, and will be thoroughly taught the business.

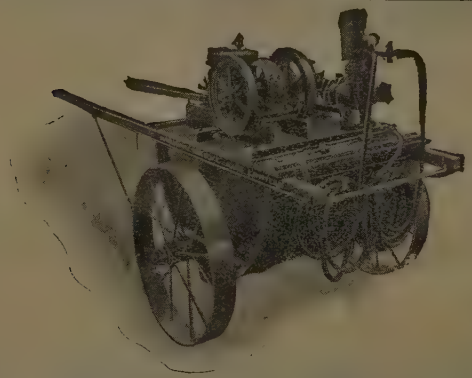
Future prospects unrivalled.

Apply—

G. S. JACKSON,

Arthur Street, MOSMAN, SYDNEY, N.S.W.

Phone Y4035



A RELIABLE SPRAYER

Here is a Plant that Practical Orchardists Value:

PUMP—Double-Acting, High Pressure, Single or Duplex as required, working up to 300 lbs. per sq. inch.
ENGINE—1½ H.P. Fairbanks-Morse, type "Z," operating on kerosene.
VAT—Approximately 80-gall. capacity; strongly made, easily cleaned.
HOSE — Two 30-ft. lengths 6-ply H.P. hose fitted with "Edgell" patent cut-off and Bordeaux nozzles.
TRANSPORT—Low-set, well-balanced and firmly put together.

Let us quote you for prompt delivery.

Dangar, Gedye & Co. Ltd., Young St., SYDNEY

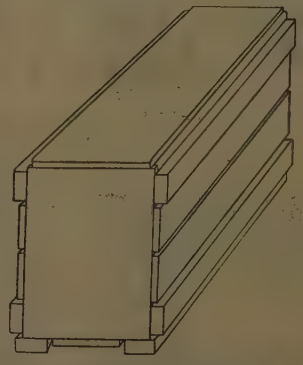
. . EXPORTERS . .

When shipping your FRUIT use the

"AIRFREE" CASE

(*Patent 9331/22*)

Which EN-SURES Perfect Ventil-ation



Protects Your Fruit from being Bruised

Full particulars from

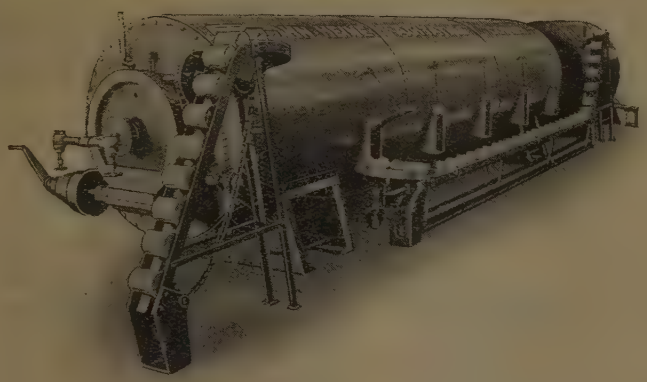
ESMOND RUSSELL

60 Queen Street, Melbourne

or any Export Agent

FRUIT CANNING

The Illustration shows the **"JOHN HEINE" CONTINUOUS AGITATING COOKER WITH COOLER COMBINED.**



Outer shell made of ¼ inch boiler-plate.

Variable Speed Drive.

Intermittent Exit Doors, making for easy timing.

Steam heat projecting on to each can, ensuring 15% reduction on usual cooking time.

We make also:—

EXHAUSTERS
SYRUPPERS
DRAINERS
BLANCHERS
PEACH SLICERS, ETC.

JOHN HEINE & SON LTD., MAKERS

ALLEN STREET, LEICHHARDT, SYDNEY, N.S.W.

BE READY to BOTTLE some FRUIT!

HOUSEWIVES OF AUSTRALIA—

Do you know what it means to you to have your pantry shelves stocked with delicious

BOTTLED FRUITS?

If you do not, then you should secure at once a FOWLER PATENT VACUUM FRUIT BOTTLING OUTFIT.

Send at once to any leading Store in the Commonwealth for new Illustrated Price List.

No. 2 OUTFIT COMPLETE.

Fowlers' Vacuum Fruit and Vegetable Bottling Outfits make Home Bottling a Pleasurable Pastime!

FRUIT and VEGETABLES bottled by the FOWLER Method retain that "FRESH FROM THE GARDEN" flavour and appearance.

There is no screwing down hot bottles, they automatically seal during the sterilising process.

Sugar is not essential. You can bottle in water if desired, and sweeten it to taste when you use it.

Home-made Preserves and Bottled Fruits are far superior to factory packed. You can put Jam in the Vacuum Bottles, too, and when sealed by the Fowler Method it can never mould. Full instructions are supplied with each Outfit.

Manufactured in 8 Sizes for Home and Orchard Use by:—

FOWLERS PROPRIETARY LIMITED, 10 GOLDING STREET, HAWTHORN, Victoria

R. Brinsley & Co., McHenry Street, Adelaide, Agent for S.A. R. B. Davies & Co., 100 Clarence Street, Sydney, Agent for N.S.W
C. G. Thomson, Economic Chambers, William Street, Perth, Agent for W.A.

STOCKED IN BRISBANE BY CIVIL SERVICE STORES.

The Fruit Trade

Every Firm should be Officially Represented

if only by a line or two—Our Readers are Your Clients. It is an able and wise introduction, and when you go through the fruit districts our Readers will have already known you through us.
It pays best to send Consignments Regularly — Not Occasionally — to the best markets, by doing so you strike the rising and falling markets and make a fair average for the season.

A ten times wider and better distribution will ensure a ten times greater production, at more payable returns. It is large and valuable exports from settled industries that make a nation prosperous.—Ed. "F.W."

This Journal is the recognised representative of the FRUIT TRADE in the Southern Hemisphere.

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.
Advertising in this Journal.

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Chilton, F., City Fruit Markets.
Hopkins & Lipscombe, Fruit Exchange.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.
Wade, Noel, V., Royal Exchange (representing the North of England Fruit Brokers Ltd., Manchester, Eng.).

VICTORIA.

Melbourne.
Coastal Farmers' Co-op. Society, Western Market.
Davis, J., Western Market.
Dennys, Lascelles Ltd., 509 Collins Street.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen Street (representing Nothard, Lowe & Wills Ltd., London).
Millis, A., & Sons, Western Markets.
McClure, Valentine & Co. Pty. Ltd., 49 William St.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke St.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 439 Flinders Lane.
Woolf, G., Western Market.

QUEENSLAND.

Brisbane.
Barr, A S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
International Fruit and Produce Co., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

WESTERN AUSTRALIA.

Perth.
Wills & Co. Ltd., G., Exporters.

SOUTH AUSTRALIA.

Adelaide.
Wills & Co. Ltd., G., Exporters.

TASMANIA.

Hobart.
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

NEW ZEALAND.

Auckland.
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

Dunedin.
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Central Produce Mart, Moray Place.

ENGLAND.

London.
Da Costa, Gerald, Covent Garden.
Jacobs, E., & Sons, Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Moore & Co. Ltd., F.W., 8 Arthur Street, London Bridge.
Monro, Geo., Ltd., Covent Garden.
Nothard, Lowe & Wills Ltd., Tooley Street.
Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

Hull.
"Port of Hull," E. Bechervaise, 51 Moorabool-street, Geelong, Vic.
White & Son Ltd.

Liverpool.
J. Adam, Son & Co.
T. J. Johnson & Co., also Manchester and Hull.
Roger White & Co., 37 Victoria Street.

Manchester.
North of England Fruit Brokers Ltd.

British and Australasian Market Reports

Great Britain.

Liverpool (10/10/23).

Messrs. J. C. Houghton & Co. report a decline in the prices of American barrel Apples, the standard quality having been lowered. Prices, per barrel, N.Y.P., 22/6 to 25/- (some to 32/-); Ben Davis, 23/- to 30/6; Jon., 17/6 to 36/6; Nova Scotian Gravenstein, 18/- to 27/-.

Early consignments of box Apples met with a disappointing reception, excepting Washington and Oregon Newtowns, which realised 14/- to 17/3. Others—Jon., 8/9 to 15/-; Californian Newtowns, 8/- to 10/9; Spitz., 9/- to 10/-; King David, 10/- to 16/3.

Pears are Wanted.—Prices: Virginian Kieffer, per barrel, 40/- to 42/-; American Kieffer, per box, 12/-, 13/-; Comice, 27/-, 32/- per box; Clairgeau, per half box, 10/6.

Grapes.—Best Almeria, 20/- to 24/- per barrel.

The Fruit Branch of the Canadian Department of Agriculture report, under date, October 15th:—

Southampton.—B.C. Apples, Cox, per box, 17/- to 19/-; McIntosh ex. fancy, 14/6; fancy, 12/6 to 14/6.

Glasgow.—N.S. Apples, Gravenstein, barrels, 20/- to 28/-; Ribston, 21/- to 24/-; Canadian C.O.P., per box, 19/-; Washington (U.S.A.), Jon., 15/6 to 16/6.

London (13/10/23).

The following are the prices ruling at Covent Garden Market, as published in the "Fruit, Flower and Vegetable Trades' Journal," 13/10/23:—

Apples, English, 4/- to 9/- per bushel. Cox's O.P., 10/- to 16/- per ½ sieve. American Jon., 45/- to 47/- per barrel. Bananas, Fyffe, 10/- to 20/- per crate. Hoya, 13/- to 25/-. Grapes, Alicante, 1/- to 2/6 per lb.; Muscat, 1/9 to 5/-. Lemons, Messina's, 300's, 21/- to 25/- per box. Oranges, South African, seedless, 20/- to 25/-; Seedlings, 20/- to 25/-; Australian Seedless, 25/- to 30/-; Seedlings, 20/- to 25/-. Peaches, English, special, 15/- to 24/- per doz. Pears, English, 3/- to 14/- per ½ sieve; Cal., 30/- per case; 16/- to 17/6 per ½ case. Pines, 1/- to 5/- each.

Successful Citrus Shipment.

The Victorian Central Citrus Association report, under date 10/11/23, having received a cable from Isaacs & Sons Ltd., of Eastcheap, London, to whom was consigned a shipment of 993 cases of Oranges by the s.s. "Hobson's Bay." The following were the prices realised:—

Late Valencia.—112's, 28/- to 32/-; 126's, 29/- to 35/-; 160's, 176's, 200's, 31/- to 37/-; smaller, 32/- to 36/-.

W. Navels.—80's to 96's, 30/- to 36/-; 112's, 33/- to 39/-; 126's to 150's, 34/- to 40/-; 176's, 35/- to 42/-; 250's to 252's, 35/- to 42/-. The fruit arrived in "fairly sound condition." The above consignment was made up as follows:—

The 502 cases from New South Wales (mostly Late Val.), came from Griffith Co-op., Somersby, Gosford, and Central Mangrove and Golden Grove Packing Co.'s. The Victorian Oranges (W.N and L. Val.) came from Irymple, Bamawm, Madowla and Cobram.

Victoria.

The Victorian Central Citrus Association Pty. Ltd., report, under date, 16/11/23:—

Dry Oranges.—A small quantity of dry Navels, apparently second crop fruit, has been placed on the market. While this fruit has received a high price, on account of the light supplies, it has caused a good deal of dissatisfaction among buyers. It is very damaging to the citrus industry as a whole that any dry Oranges should be marketed. The members of the general public who buy these Oranges are naturally disappointed when they find them uneatable, and they shy off Oranges for the time being. It will thus be seen that marketing dry Oranges is penny-wise and pound-foolish policy.

The market was lightly supplied during the week, but the demand was somewhat slack on account of early arrivals of Cherries and Strawberries. Fair prices, however, were maintained, and the prospects for the coming week are considered to be favourable for good juicy fruit. Quotations:—Navels—Best grades and counts, 16/- to 20/-; large sizes, 12/- to 14/-; second grades, 10/- to 12/-; Valencias—Best grades and counts, 16/- to 20/-; second grades, 12/- to 16/-; Lemons, in good demand, 9/- to 12/-.

Melbourne (27/11/23).

The following are the wholesale prices ruling at the Western Market:—Apples—Choice, eating, good eating, 9/-, 14/- per bushel case; choice cooking, 8/-, 12/-. Bananas—Queensland, 22/-, 32/- double. Cherries—Choice dark, 12/-, 16/-. Gooseberries, 14/-, 17/-. Lemons—Victorian, Mildura, 10/-, 14/-. Oranges—Mildura, 16/-, 19/-. Passion-fruit—Victorian, 18/-, 34/-. Pineapples—Queens, 25/-, 30/- double. Strawberries, 6d., 1/- box.

New South Wales.

Sydney (27/11/23).

Mr. F. Chilton, City Fruit Markets, reports under date, 27/11/23, prices ruling as follows—

Q'land Pines, smooths (colored), 20/- to 24/- per case. New South Wales Bananas (Tweed R.), 18/ to 30/- per case; Oranges, 10/- to 15/- per bushel case; Lemons, 8/- to 15/-; Apples, Granny Smith, 9/- to 18/-; Passions, 10/- to 25/- per half case; Cherries, 6/- to 10/- per quarter case; Apricots, 3/- to 14/- per half case; Peaches, 6/- to 15/-; Plums, 7/- to 12/-. N.B.—Prices for New South Wales fruit are quoted exclusive of case. Victorian Apples—Yates, 9/- to 18/- per bushel case; Rome Beauty, 12/- to 16/-. Tasmanian Apples—Crofton, 10/- to 18/- per bushel case; S.P.M., 5/- to 13/-; S.T.P., 10/- to 14/-; F.C., 13/- to 16/-; Dem. (Tasma), 14/- to 20/-.

Queensland.

Brisbane (20/11/23).

Apples.—Vic. Rome Beauties, 15/- to 16/- a bushel case; Yates, small, unwrapped, 5/- to 6/-; wrapped, 2in., 9/- to 10/-; Sturmers, 16/-; Pines, small, rough leaf, 13/- to 14/-, including case; Apricots, Sydney, imported, 12/- to 14/-; Gooseberries, English, 7/- a tray; Papaws, 5/- to 8/- a tray; Oranges, imported, prime, 19/- to 20/-; medium and inferior, 17/- to 18/-; Lemons, imported, prime, 19/- to 20/-; South Aust. Lemons, 20/- to 23/-; Cherries, 4/6 to 14/- a tray; Bananas, sugars, 4d. to 8½d. a doz.; Lady's Fingers, 4d. to 8d.; Cavendish, prime, 7d. to 9½d. a dozen.

South Australia.

Adelaide (24/11/23).

Apples, eating, 14/- to 16/- per bushel case; do. cooking, 14/-; Bananas, 34/- to 36/-; Cherries, 30/-; Gooseberries, 8/-; Lemons, 12/- to 16/-; Loquats, 5/- to 10/-; Almonds, 10/- to 12/- per doz. lb. Brazil Nuts, 13/- per doz. lb.; Coconuts, 4/6 to 5/- per doz.; Walnuts, 12/- per doz. lb.; Oranges, common, 14/- per case; Strawberries, 1/3 per lb. Prices do not include cost of case.

West Australia.

Perth (22/11/23).

Apples, Yates, best, 15/- to 17/3 per bushel case; others, to 11/-; Granny Smiths, 17/- to 22/-; Dunn's, best, 15/- to 18/9; small, to 13/6; Schoolmaster, 13/3 to 16/-; Rokewoods, to 12/-; Democrat, 12/- to 14/6; Doherty, to 11/6; Cleos.,, to 10/6; Navel Oranges, 13/- to 17/-; large, to 10/-; Valencias, best, 11/- to 13/6 ¾ bush.; others, to 9/-; Mandarins, 6/6 to 13/9; Lemons, best to 16/3; large, to 8/-; Passions, ¾ bushel, 39/- to 41/-; ½'s, to 20/-; Loquats, best, 10/- to 13/6; others, to 7/-; Apricots, to 24/6; ¾ bushel Peaches, very small, 13/6; Cherries, best, 19/- to 24/6 per tray; others, to 15/-.

New Zealand.

Dunedin (16/11/23).

Reilly's Central Produce Mart. Ltd. report under date, 16/11/23:—Consignments of Strawberries and Cherries are meeting a keen demand. Prices received: — Strawberries, Choice, 2/1 to 2/11½; inferior, 1/3 to 1/9 pottle. Pears: Choice desserts, 14/9, 17/9; choice cooking, 8/-. Apples: Delicious, choice, 15/-; others, from 2/6 to 8/-; Dougherty's, 10/-, 14/-; Democrats, 8/- to 12/6; Sturmers, 4/6 to 12/-; cookers, choice, 5/6; Canadian McIntosh Reds, 20/-; inferior Apples, 1/- to 3/-. Lemons: American, 47/6. Oranges: N.S.W. Valencias, 22/6; Adelaide, to 27/6; American, 40/-. Passions: Choice, 24/6. Bananas: Choice, 32/6; ripe extra choice repacks, 37/6 for large Suva cases; Raratongas, 32/6. Queensland Pines: 25/6; Suva Pines, 12/6 to 18/- per case. Cherries: 10d. to 1/4½ for medium; extra choice, 2/6, 2/8.

HANDLING FRUIT IN LONDON.

We are requested to direct attention to the interesting sketches in this issue in connection with the advertisement of Messrs. Nothard, Lowe & Wills Ltd. A picture is shown of the River Thames, and the section where Cotton's Wharf has been established. This is in the heart of the city of London, same being a few minutes' walk from the London Bridge and St. Paul's Cathedral.

As discussions have frequently taken place relating to the handling of fruit between the Tilbury Docks and the Covent Garden Markets, it is of interest to note that fruit consigned to Nothard, Lowe & Wills Ltd. is not taken by road, but is discharged into lighters, from which delivery is made straight into the firm's warehouses at Cotton's wharf. This up-to-date method of receiving the fruit in London, eliminating unnecessary handling and jolting along the road, is appreciated by Australian growers.

It is further pointed out that this old-established firm sells only by private treaty, they having in their many years of trade secured a valuable clientele of accredited buyers, an extensive business having been built up, steady prices thus being maintained, and the jerkiness of the auction market eliminated.

Messrs. Nothard, Lowe and Wills Ltd. receive fruit from all parts of the world, thus keeping up a regular supply to customers, who are keen to obtain Australian fruit in its particular season.

KILL THE CODLIN MOTH

and other insect pests with

HEMINGWAYS (English)

ARSENATE OF LEAD

(Paste)

The Best and Most Successful on the market

Effective, Economical and Easy to Use

Prices

1/3d per lb. for 100lb. kegs

1/3½ per lb. for 50lb. kegs

Wholesale distributing agent for Victoria,

Esmond Russell

60 Queen Street, Melbourne

ANSWER TO QUERY.

Wood Wool for Packing Fruit.—"New Chum Fruit Cocky" asks:—When using packing preparations, such as wood wool, in packing fruit for export, is it necessary that each individual fruit should be packed in the packing, or would a layer along the top, bottom and sides be sufficient? Also, would this packing be satisfactory to carry fruit on a sea journey of about a week's duration?

Answer.—The amount of wood wool used in fruit packing varies, according to the class of fruit being packed.

Apples for export are not usually packed with wood wool, if the fruit is correctly sized and each Apple wrapped in paper, and packed according to the set packs. (See previous "Fruit World" articles on this subject.) The fruit would be sufficiently firm in the case to ensure good carriage.

Firm packing is the secret of good carriage, but if overdone may cause bruising. Use wood wool lightly on top and bottom only.

Pears packed in trays require a more liberal use of wood wool than most packages, but here again the object is to make certain that the fruit is firmly held.

The rule, then, for the use of wood wool may be said to be to stop rattling of the fruit in transit.

Few of our fruits require to be packed in nests of wood wool, and, in fact, the method would be very costly, as the number of fruits packed in a case in this way would be too small for commercial purposes.

If packing full ripe soft fruits, Peaches, etc., no doubt this would be the only safe method, but full ripe fruits have a very limited market.

QUEENSLAND.

Council of Agriculture and Fruit Marketing Act are Appreciated.

The Editor acknowledges correspondence from several districts, stating that the criticism by our correspondent of the Queensland Fruit Marketing Act was not justified.

A reader at Eight Mile Plains points out that the legislation was enacted at the request of bona fide growers. The Secretary of the Bracken Ridge (via Sandgate) Local Producers' Association writes in the same strain.

A correspondent at Beerburrum continues:—"The Council of Agriculture is composed of 25 members, 19 being farmers elected by the growers, and six Government nominees. The six cannot dominate nineteen.

"The scheme of the Co-operative Supplies Company, whereby producers would pay a levy of 4½d. per week, until they had paid about 15/- has been held in abeyance for a while, although a majority of producers were in favour.

"The attempted disposal of last winter's crop of Pineapples was conducted by the Southern Queensland Fruit Society—not the Council of Agriculture—and was a fair success.

"The fruitgrowers of Queensland must stick together to get a fair return for their labour and money expended on their gardens. They have the opportunity now, and are grasping it with both hands."

From Tambourine Mountain, a grower writes:—

Allowing that last year's expenses of the organisation amounted to £25,000, that, on an agricultural production, amounting to millions in sugar, meat, wool, butter, cheese, eggs, fruit, grain, etc., is a small amount to pay for organisation and improvement.

Some tangible results from the Council's efforts are as follows:—The price of butter was enhanced to the producer; the conditions regulating returns on sugar were materially assisted; the price of maize was kept up through the increase of duty on the African grown article; the price of eggs was stabilised to some extent at least; the agents' commission on the sale of fruit in Brisbane was reduced by 2½ per cent.; an improved variety of potato was made available to Queensland growers; fodder supplies for starving stock were organised. A Bill was passed materially assisting the man on the land in the highly important matter of water supply, and more generous and easily obtained assistance to the farmer for the purchase of plant and machinery, was arranged for.

With regard to the Fruit Marketing Bill—many clauses are introduced into Bills to allow for dealing with remote (sometimes very remote) contingencies.

EDITORIAL COMMENT.

We thank our several correspondents for their letters. Our columns are at all times open for the expression of the considered opinions of our readers.

Organisation amongst fruitgrowers is essential to progress, and the "Fruit World" has consistently advocated same, and regularly publishes details of successful organisation amongst primary producers in Australia and other parts of the world.

Citrus Orchard for Sale.—We are requested to draw attention to the advertisement on page 474, which refers to Florida Grove, near Wangaratta. Sheltered position; good soil; trees in bearing: in addition, there are nine acres of Walnuts. Well appointed home included. The owner can give good reasons for selling, and full particulars are obtainable from Messrs. W. Flanagan & Co., Wangaratta, Vic.

"GET BACK TO NATURE."

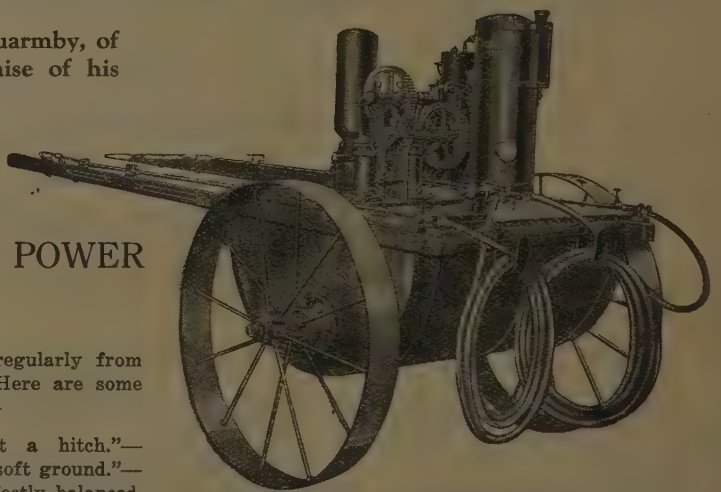
Savages and animals don't go to a chemist's shop. They eat suitable herbs when indisposed. There is a herb to cure every disease, and the herbs that ensure a good digestion and freedom from liver and stomach troubles are the very herbs from which A.M.S. is compounded. Taken as directed, A.M.S. will fill you with a new joy in life—the hope and exaltation which come from splendid health. A.M.S. is not a medicine, but an aid to digestion, which cures and keeps cured. Try a bottle to-day. All chemists 3/-, or by post 3/6 from T. A. Dickson, Chemist, Geelong, Vic.

"The BEST SPRAYER I have ever seen!"

So wrote Mr. H. J. Quarmby, of Batlow, N.S.W., in praise of his

Cooper

PERFECT BALANCE POWER SPRAYER



Similar letters are reaching us regularly from scores of highly satisfied owners. Here are some typical remarks contained in them:—

"Goes through spraying without a hitch."—"Broadwheels prevent it bogging in soft ground."—"Easily pulled by one horse and perfectly balanced, it's just the thing for hilly orchards."—"Has earned a name hard to beat."

WRITE NOW FOR TERMS, ETC., AND LEAFLET GIVING FULL PARTICULARS.

COOPER ENGINEERING CO. LTD.

350 Spencer Street, Melbourne
129 Sussex Street..... Sydney

CLARK & FAUSET LTD., Brisbane.
AUSTRALASIAN IMPLEMENT & H. F. CO., Adelaide
G. V. CHAPMAN, Launceston and Hobart.

Brunning's "DEMON" Automatic Birdscarer

WILL SCARE THE BIRDS AND SAVE YOUR FRUIT!

A boon to all Fruitgrowers! It saves time and labor and will last a lifetime. No parts to get out of order; requires no attention: working costs are especially low, and when charged will last for 16 hours.

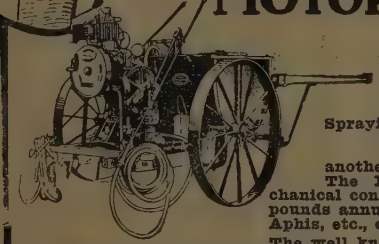
THOROUGHLY PROVED THROUGHOUT AUSTRALIA
BIRDS CANNOT GET USED TO IT!

Prices and Special Leaflet on application.

BRUNNINGS

F. H. Brunning Pty. Ltd.
64 Elizabeth Street
Melbourne

DONCASTER MOTOR SPRAYERS



Orchard Pests Meet Their Doom in Record Time.

Spraying does not always mean the passing out of parasites—that depends on the Sprayer.

another world. It's saving orchardists thousands of The Doncaster roots them out and they depart for chanical construction is designed so that Scale, Moths, Pupae, pounds annually because of its greater efficiency. Its me- Aphis, etc., cannot escape it—

The well known Challenge Petrol Engine supplies the power. Unchokable suction—perfect and improved lubrication. Pumps are scientifically constructed, all wearing parts bushed with gun metal—agitation is easily the best on the market. U shaped Vat, 4ft. long 56in. diameter. Every part simple and accessible. Low set transport.

Only £10 down, balance as you save.

EXPERT ADVICE FREE.

Ask for Catalogues of all Sprayers, Windmills, Farm pump Engines, Irrigation plants, Goulds and Myers Pumps, Lister and Tangye Petrol and Kerosene Engine. Agents wanted everywhere. Large stocks of slightly used Engines at big reductions. Write for particulars and prices.

VINEYARD SPRAYER

HAND SPRAY PUMP

Vignerons everywhere praise the Vineyard Sprayer illustrated above.

Stocks of Hand Sprays for Smaller Growers

LANGWILL-BROS & DAVIES PTY LTD 110-114 STURT ST STH MELB.

SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from October 20th to November 20th, 1923. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to local agents or to our offices in the various States:—

Capt. G. I. Adcock (July, '27), L. A. Alford (Jan., '24), R. Aitken (Sep., '24), Agricultural Dept., Sydney (Sep., '24), J. H. Atkins (Nov., '24), J. W. Aspinall (Aug., '24), Australian Press Association (Sep., '24), A. V. Ballinger (Aug., '27), W. J. Barnes (Sep., '24), S. Beavis (Aug., '24), R. G. Bosanquet (Jan., '24), B. Bowd (Sep., '24), F. Burges (May, '24), A. R. Burbury (Sep., '24), Burge Bros. (Nov., '23), J. R. Chapman (Jan., '24), R. M. Cohen (Jan., '24), H. G. Caldicott (Sep., '24), W. B. Chaffey (Aug., 24), W. T. Charley (Aug., '24), L. P. Clapp (Sep., '25), Commonwealth Co-op. Growers' Dist. Ltd. (Oct., '24), B. F. Cranwell (June, '24), J. F. Crowe (July, '27), C. Davies (Aug., '24), J. Davis (Sep., '24), F. W. Duncan (Sep., '24), J. Dahlgreen (Jan., '25), Mrs. E. Dyer (Aug., '24), C. W. Einam (Aug., '24), Wm. Ellison (Aug., '24), Farquhar Bros. (Sep., '24), C. Franks (Sep., '24), E. Giddins (Sep., '24), T. M. Gibson (Aug., '24), B. Gosstray (Sep., '24), Griffith Prod. Co-op. Co. Ltd. (Aug., '24), J. P. Greenwood (Aug., '23), C. B. Granger (Oct., '24), Gosford Dist. Citrus Packing House Ltd. (Oct., '24), J. Goodwin (Jan., '24), J. Haynes (Jan., '25), L. Hanlon (July, '24), H. Hanson (Aug., '24), High Commissioner's Office, London (June, '24), H.M. Stationery Office, London (Dec., '23), A. Higgs (Jan., '24), L. L. Hill (Oct., '24), R. Hill (June, '24), K. Holme-Barnett (Dec., '23), W. I. A. Horacek (Aug., '24), Imperial Bureau of Mycology (Dec., '23), C. E. Ingram (June, '24), A. T. Johnson (Dec., '23), H. F. Jones (Aug., '24), P. V. Kerr (Aug., '24), R. Kilpatrick (Aug., '24), W. Kilgour (July, '24), E. I. Lawford (Aug., '24),Jno. Lang (Dec., '24), H. M. Leggo & Co. (Aug., '24), G. J. Mackay June, '24), G. T. Midson (June, '24), K. Moore (Aug., '24), J. R. Morris (Aug., '24), Murray View Irrigation Co. Ltd. (Aug., '24), G. W. Muller (April, '24), J. A. Nairn (May, '25), J. J. Odgers (Jan., '25), R. E. Petty (Aug., '24), S. J. Perry & Co. (Dec., '23), H. G. Perry (July, '24), L. H. Moss Robinson (Oct., '27), E. Rees (July, '24), H. Renk (Aug., '24), Rhodes Fruit Farms Ltd. (July, '24),C. F. Richmond (June, '23), A. Schwartz (April, '24), S. G J. Shumack (Oct., '24), Shepparton Fruit Preserving Co. (Aug., '24), W. Slatter (June, '24), Thos. Smith (Sep., '24), S. G. Smith (Sep., '24), S.A. Cold Stores Ltd. (Aug., '24), E. A. Standring (Aug., '24), W. Shepherd (Aug., '24), S. Sheppard (Nov., '23), W. C. Thomas & Sons Pty. Ltd. (Aug., '24), J. P. Tooby (June, '25), F. Tucker (Oct., '24), Union S.S. Co. (Aug., '24), F. L. Vines (Aug., '24), G. H. Walker (Feb., '24), A. E. Waller (Sep, '24), G. L. Ward (Aug., '24), W. A. Webb (April, '24), H. V. Wiggins (Sep., '23).

Export of Australian Grapes.—We are advised that the growers at Merbein (Vic.), who sent six hundred cases of Ohanez Grapes to London last season have decided to send 6,000 cases during the coming season.

The fruit is handled by Messrs. Swann & Co., London, who have been established in the fruit importing business for over one hundred years.

Mr. Barrett-Lennard, of Western Australia, the largest exporter of Australian fresh Grapes, uses a package with measurements as follows:—24in. x 11¾in. x 6in. inside measurement, containing 25 lbs. Grapes.

Mr. C. E. Howship, Australian representative of Messrs. Swann & Co., urges the importance of using barrels in which the Grapes can be packed in sawdust, and also that the general trade name "Almeria" should be adopted.

CITRUS TREES
for EARLY AUTUMN PLANTING

We have fine stocks available in both

Branched Trees and —— Straight Rods ——

These, if Nursery rowed now, would make fine, hard stuff for February-March planting.

Write Us—

F. Ferguson & Son

Australian Nurseries

HURSTVILLE —— N.S.W.

FOR PRIVATE SALE

Portion of the well known

"Florida" Orange Grove, Wangaratta

50 ACRES SPLENDID TREES. MOSTLY IN FULL BEARING.

"Florida Grove" is one of the best known Orangeries in the State, about 5 miles from Wangaratta; ideal position, well sheltered; fruit hangs late, thus securing highest market values: Navels being marketed in Nov. and Dec., and Late Valencias in Feb. and March. Soil decomposed granite, with porous subsoil, well watered and pipe drained.

WHY WAIT YEARS FOR YOUNG TREES TO BEAR?

This affords an opportunity to secure a grove planted with judgment, regardless of cost: will immediately return enormous profits on the money invested. All pests well controlled by up to date methods. Beautiful home, with all conveniences and necessary outbuildings.

In addition, 9 acres Walnut Grove, planted 15 years.

Owner can give good reasons for selling, and genuine buyers should not fail to communicate with us. We will arrange inspection.

W. E. FLANAGAN & CO., Wangaratta, Vic.

"VALLO" SPRAY SPREADER

Makes Your Spray Spread and Stay.

It can be added to all Sprays both Summer and Winter.

Used with Arsenate of Lead, Lime Sulphur, Bordeaux Mixture. Nicotine Sulphate.

Tins containing 20lb. at 10d. lb. f.o.b. or f.o.r., Main Aust. Ports.

"VALLO" CALCIUM ARSENATE

For the destruction of Garden Snails, Wood Lice and all leaf eating insects.

Tins containing 1 lb., at 1/6 lb. F.o.b. or f.o.r. Main Aust. Ports.

You will be interested to see our Booklets and Price Lists, Free on application.

Agents throughout Australia and New Zealand.

Manufactured in Australia by

A. VICTOR LEGGO & CO.

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Sulphide Fertilisers Stand Supreme

There are
SPECIAL
SULPHIDE
FERTILISERS
for all crops

SULPHIDE SPECIAL ORCHARD MANURE

analysing as follows:

Nitrogen-Sulphate Ammonia	2.30%
Phosphoric Acid, water soluble	12.00%
„ „ citrate soluble	.40%
„ „ insoluble	.40%
Total Phosphoric Acid	12.80
Potash	7.25

and sold at

£11 per ton f.o.r. Cockle Creek

has given wonderful results in many of the Fruitgrowing districts of New South Wales.

Try Some on Your Fruit Trees

applied at the rate of approximately 1lb. of fertilizer for each year of the tree's growth

Price List and analysis of the complete range of SULPHIDE FERTILISERS will be sent on application to

GIBBS, BRIGHT & CO.

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The inland Port nearest to the World's Greatest Industrial Centre and to 10 million consumers and users of every variety of Primary Produce; modern Port and Dock equipment, including refrigerated transit warehouses; Direct Railway Communication with every berth; Markets near the Docks.

Population within various radii of the Ports of Bristol, Hull, London and Manchester:—

MILES RADIUS.	BRISTOL.	HULL.	LONDON.	MANCHESTER.
25	1,063,662	598,934	8,292,767	4,035,360
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75	6,074,284	5,353,568	13,131,319	14,106,422

Ensure minimum handling, transport and distributing charges by shipping via the most direct route from Producer to Consumer.

Information as to Port and Forwarding Charges, Steamship Services, Merchants and Importers, etc., on application to the representative of the Manchester Ship Canal Company for Australia and New Zealand:—

CAPTAIN W. J. WADE

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IRON AGE Horse Hoe and Cultivator

No. 600 E.L.

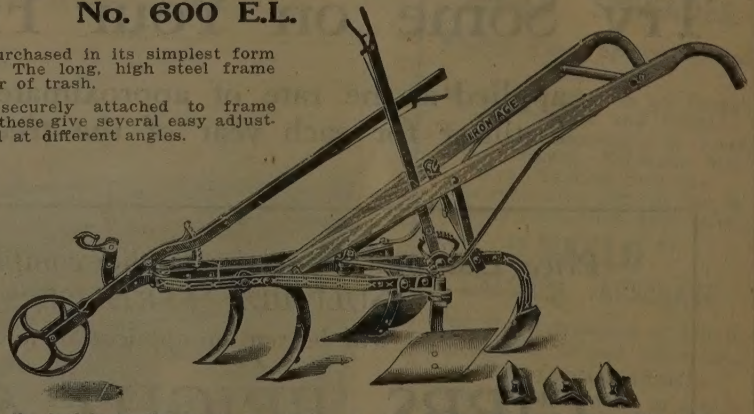
Is a built-up machine. It can be purchased in its simplest form and attachments added as desired. The long, high steel frame makes the tool run steadily and clear of trash.

HOE STANDARDS are of solid steel, securely attached to frame bars, malleable ratchet castings—these give several easy adjustments to the side hoes, sideways and at different angles.

WHEN USED AS A CULTIVATOR expands to 30 inches and closes to 14 inches. Teeth attached to hoe standards in same position as side hoes in illustration are 11 inches apart.

FOR CLOSE HOEING, side hoes are reversed with rounded edge forward —also to take away soil from a ridged crop.

AS A FURROWER for manure, etc., the ratchet castings are reversed on inside of the frame bars, bringing the hoes together. Changed from side to side, with points forward for covering.



THE EXPANDER LEVER changes the tool instantly, while in motion, to any width within range. The bars, lever, and braces are steel, with malleable fittings—works smoothly. No. 600 E.L. has lever wheel; at times a very necessary adjustment. It regulates the working depth while the machine is in motion and saves time.

AS ILLUSTRATED, No. 600 E.L. is shown with lever wheel and Lever Expander. Packed weight, 83 lbs. **PRICE, £4/17/6.** We stock various attachments for this machine, including—Vine Lifter, 13/6; Leveller, 9/-; Runner attachment, 9/-; Side hoes, 11/3; and others.

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We Specialise in Pumps and Piping